REGIONAL DEVELOPMENT THROUGH GLOBAL PRODUCTION NETWORKS: THE CASE OF TEA SECTOR IN EASTERN BLACK SEA REGION

A THESIS SUBMITTED TO
THE GRADUATE SCHOOL OF NATURAL AND APPLIED SCIENCES
OF
MIDDLE EAST TECHNICAL UNIVERSITY

BY

BEDRİYE OKŞAN TÜYLÜOĞLU

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR
THE DEGREE OF MASTER OF SCIENCE
IN
REGIONAL PLANNING IN CITY AND REGIONAL PLANING

NOVEMBER 2022

Approval of the thesis:

REGIONAL DEVELOPMENT THROUGH GLOBAL PRODUCTION NETWORKS: THE CASE OF TEA SECTOR IN EASTERN BLACK SEA REGION

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ABSTRACT

REGIONAL DEVELOPMENT THROUGH GLOBAL PRODUCTION NETWORKS: THE CASE OF TEA SECTOR IN EASTERN BLACK SEA REGION

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November 2022, 282 pages

This thesis explores the possible regional development outcomes of global production networks to the tea sector in the Eastern Black Sea Region. The argument of the global production network literature that, in addition to the region's internal dynamics, the region's compatibility with the needs of global actors is also essential for regional development has been a starting point for the study. Based on this argument, the links between the Turkish tea sector and global production networks are analyzed within the scope of the thesis. As a result, it has been determined that these linkages mainly emerge in the region through the investments of global firms and sustainable production models of small-scale local enterprises. In this context, the possible effects of these linkages on the region's development have been discussed, and the suitability of integration into global production networks for the development of the region is questioned. To conclude, the regional development through global production networks is not yet the right strategy for the Eastern Black Sea Region due to insufficient value capture capacity of the region.

Keywords: Global Production Networks, Regional Development, Tea Sector

ÖZ

KÜRESEL ÜRETİM AĞLARI ARACILIĞIYLA BÖLGESEL KALKINMA: DOĞU KARADENİZ BÖLGESİ ÇAY SEKTÖRÜ ÖRNEĞİ

Tüylüoğlu, Bedriye Okşan
Yüksek Lisans, Bölge Planlama, Şehir ve Bölge Planlama
Tez Yöneticisi: Prof. Dr. Melih Pınarcıoğlu

Kasım 2022, 282 sayfa

Bu tez kapsamında, Doğu Karadeniz Bölgesi çay sektörü üzerinden küresel üretim ağlarının bölgesel kalkınma açısından olası sonuçları araştırılmaktadır. Küresel üretim ağları literatürünün, bölgenin iç dinamiklerinin yanı sıra küresel aktörlerin ihtiyaçlarına uygunluğunun da bölgesel kalkınma için gerekli olduğu argümanı, çalışmanın çıkış noktası olmuştur. Bu argümandan yola çıkarak, Türk çay sektörü ile küresel çay üretim ağları arasındaki bağlantılar tez kapsamında analiz edilmiştir. Bu analiz sonucunda, bu bağlantıların ağırlıklı olarak küresel firmaların yatırımları ve küçük ölçekli yerel işletmelerin sürdürülebilir üretim modelleri aracılığıyla ortaya çıktığı tespit edilmiştir. Bu bağlamda, tezin son kısmında bu bağlantıların bölge kalkınmasına olası etkileri tartışılmış ve küresel üretim ağları stratejisine entegrasyonun Doğu Karadeniz Bölgesi'nin kalkınması için uygunluğu sorgulanmıştır. Çalışmanın sonunda, Doğu Karadeniz Bölgesi'nin değer yakalama kapasitesinin yetersiz olması nedeniyle, küresel üretim ağlarına entegrasyon yoluyla bölgesel kalkınmanın henüz doğru bir strateji olmadığı sonucuna varılmıştır.

Anahtar Kelimeler: Küresel Üretim Ağları, Bölgesel Kalkınma, Çay Sektörü

To my hometown

ACKNOWLEDGMENTS

First and foremost, I would like to express my deepest gratitude to my supervisor, Prof. Dr. Melih Pınarcıoğlu, for his constant support, guidance, patience, and trust in me throughout my master's education and thesis process. This study could not have been accomplished without his encouragement and kindness. Also, I am grateful to the members of the thesis committee, Prof. Dr. Anlı Ataöv, and Assoc. Prof. Dr. Tansel Erbil for their valuable comments, contributions, and support.

I want to thank Prof. Dr. Binnur Öktem Ünsal, Dr. Tuğçe Tezer, and Barış Göğüş, who are now my colleagues but will always be my teachers, for their support and understanding in this process. I am particularly grateful to Prof. Dr. Binnur Öktem Ünsal for her trust and constant encouragement.

Also, I would like to express my gratitude to my dear friends Ruken Babayiğit, Seray Bircan, and Çağla Sağlık for their academic contribution to my thesis and their support and friendship that made this challenging process easier for me.

Lastly, I want to thank my sisters, brother-in-law, and parents for their support, trust, understanding, and love. It was particularly important for me to conduct such an academic study for the lands where my parents, my biggest blessings in this life, were born, grew up, met, and had to leave to provide better opportunities for my sisters and me.

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ABBREVIATIONS

ANT: Actor-Network Theory

ÇAYKUR: Çay İşletmeleri Genel Müdürlüğü

ÇAYMER: Rize Çay Araştırma Ve Uygulama Merkezi

CTC: Cut, Tear and Curl

DOKA: Doğu Karadeniz Kalkınma Ajansı

DOKAP: Doğu Karadeniz Projesi

EATTA: East African Tea Trade Association

FAO: The Food and Agricultural Organization

FAOSTAT: Food and Agriculture Organization Corporate Statistical Database

FDI: Foreign Direct Investment

GCC: Global Commodity Chain

GDP: Gross Domestic Product

GPN: Global Production Network

GVC: Global Value Chain

HDI: Human Development Index

IGG: The Food and Agricultural Organization Intergovernmental Group

IMF: The International Monetary Fund

IT: Information Technology

KETEPA: Kenya Tea Packers Association

KTDA: The Kenya Tea Development Authority

KTGA: Kenya Tea Growers Association

MNC: Multinational Corporation

NUTS: Nomenclature of Territorial Units for Statistics

OIZ: Organized Industrial Zone

R&D: Research and Development

SAEI: State Agricultural Enterprises Institution

SEGE: Sosyo-Ekonomik Gelişmişlik Sıralaması Araştırmaları

SME: Small and Medium-Sized Enterprise

TNC: Trans-National Corporation

TURKSTAT: Turkish Statistical Institute

UK: United Kingdom

UN: United Nations

US: United States

USD: United States Dollar

USSR: Union of Soviet Socialist Republics

VSS: Voluntary Sustainability Standards

WTO: World Trade Organization

CHAPTER 1

INTRODUCTION

‘Region’ was rediscovered decades ago as a significant source of competitive advantage and economic organization in the international political economy. This rediscovery is partly motivated by recognizing highly dynamic regional economies and industrial areas that rely heavily on localized assets for competitiveness (Amin, 1998). Today, the ongoing importance of 'regions' as the center of economic activity in subnational spaces is seen as one of the many paradoxes that have emerged with the effect of the globalization process (Coe et al., 2004). Due to the developments such as the expansion of the scale and scope of activities of transnational corporations and interregional investment competition driven by neoliberalism, academics and policymakers have shifted their focus to the need for regional-level interventions (Coe & Hess, 2011).

Consequently, in light of increased globalization and regional competition, debates on regional development paths and mechanisms have intensified. While the literature on economic geography inclines to promote regional development through the new regionalism perspective, there is a growing argument for globalizing regional development, echoed by the global value chains, commodity chains, and production networks perspectives . These two strands of research have attempted to address how notions of regional development relate to the dynamics of globalization. The first strand, new regionalism, mainly focuses on endogenous institutional frameworks and their capability to ‘hold down’ global networks (Coe et al., 2004). The proponents of this literature have emphasized analytically and empirically on the institutional structures and localized agglomerations since both are essential and sufficient factors to explain the development and growth of the regions. Considering the regions in advanced industrialized countries have an institutional structure that is

internally homogenous with historically specific growth institutions and unified regional interest, this is not surprising.

In the meantime, an analytical focus on internal regional growth sources has been further validated by the emergence of new endogenous growth theories in geographical and regional economics at around the same period (H. W. Yeung, 2009). For instance, Amin and Thrift (1994) developed the term 'institutional thickness', which includes a solid and broad local institutional presence, a high level of interconnection among local institutions, the emergence of progressive local power structures, and the growth of a sense of common enterprise. In favorable circumstances, a regional economy with dynamic, adaptable institutions, a high level of trust, and innovation is said to be the result of the institutional thickness (as cited in Coe & Hess, 2011). However, the new regionalism also has its limitations. The concept has been criticized for disregarding the role of the nation-states, regional development dynamics, effects of globalization, and large firms (Wei, 2010).

It can be said that local networks of SMEs and associational economies are overly glorified in the new regionalism literature. Even though the literature has evolved more recently, insufficient attention has been given to the connections between external global firms and their local counterparts (Yeung, 2009). As a result, comprehending current global economy by a self-contained and endogenous perspective of regions and their development is hindered by increasingly interconnected economic activity structured through cross-border value chains and production networks led and governed by global lead firms (Yeung, 2015).

The second strand of research, in turn, focuses on global commodity/value chains and inter-firm networks. The research investigates mainly the organizational structure of production systems of global firms and analyze the ways specific regions 'slot into' these production networks with variated effects on industrial upgrading (Coe et al., 2004). However, these approaches also have limitations since they frequently overemphasize the significance of extra-regional or global procedures in driving regional development trajectories. Although globalization has affected every region,

how regions relate to the global economy and how globalization affects regions varies occasionally. Notably, specific spatial and geographical contexts are determinative in this regard (Wei, 2010).

GCC and GVC analysis, both deploying chain metaphor, and their conceptual frameworks exhibit rather serious deficiencies regarding attributing agency to non-firm actors and hence the extent and scope of their interventions. The GCC framework is inclined to approach them as an external, regulatory environment in which the firms may operate instead as essential components of network formation and power struggles. Similarly, it could be argued the GVC research is mainly concerned with inter-firm interactions rather than conceptualization of non-firm agencies (Hess, 2009). Also, while both analyses concentrate on the economic interconnection structure and overemphasize the study of chain actors, sufficient attention cannot be given to territorial development outcomes. Due to this pitfall, while the analysis at the national level is prioritized, relationships between people, firms, and regions, or the places in which economic activities occur, as well as interactions at smaller scales, are occasionally overlooked (Parrilli et al., 2013 as cited in Song et al., 2020).

In brief, in their early formulations, both works of literature had been criticized for failing in conceptualization of regional economic development in the age of globalization adequately. The new regionalism literature seems to be excessively focused on local interactions and institutional structures at the expense of the numerous extra-local relations in which regions are embedded, and the functional relationships between seemingly ideal configurations of regional institutions and actual levels of economic growth were debatable (Amin & Thrift, 1992; Coe et al., 2004). On the other hand, the GCC/GVC approaches mainly adapted at the national scale and did not address how specific sub-national locations and institutions are absorbed and changed by global production systems (Coe et al., 2004).

However, following advancements in these fields have started to acknowledge their drawbacks and bring the two fields close together. For instance, Lovering (1999) has

addressed the inadequateness of new regionalism to understand the real links between the business and governance regionalization and the altered role of the state. According to him, the political forces behind decentralization have been avoided by the new regionalism, which has also neglected to address how markets and economic actors are constructed politically in general. Also, MacKinnon et al. (2002) have identified key propositions and arguments, and evaluated how they have been pursued through empirical research in an effort to critically assess the current debates on learning, innovation, and regional development. As a reaction to the criticisms and shortcomings, "new regionalism" literature has begun to place more emphasis on extra-local dynamics like knowledge, capital, and labor flows as well as the larger institutional frameworks that regions are embedded in, which shape economic growth within regions.

On the other hand, many GCC/GVC studies investigate how local economic development and industrial upgrading are impacted by integration of industrial districts and regional clusters into global production systems (Coe et al., 2004). Nevertheless, most GVC studies worldwide have remained severely constrained since they tend to analyze the governance structures of global value chains at national scales, and consider the potential for industrial upgrading within these structures generally in developing countries (Yeung, 2015). In his article Yeung (2015) also acknowledges the concerns of Lovering (1999) and underlines the danger of "theory led by policy", which takes places when regional policy-makers adopt and incorporate this GVC/GPN perspectives for policymaking before the theory is sufficiently robust.

Today, in order to provide a comprehensive conceptual framework for understanding regional development, it is critical to analyze both endogenous growth determinants present in particular regions and the strategic requirements of trans-local actors for coordinating global production networks. Therefore, the relationship between the processes of globalization and regional development is the subject of two contemporary lines of research. One line of research emphasizes the power of endogenous institutional structure to "hold down" global networks. The other one,

addresses the organizational frameworks of global firm's production system and investigates how specific locations "slot into" these global networks and value chains. In this concept, regional development is envisioned as a dynamic results of the intricate interaction between territorialized relational networks and global production networks in the setting of shifting regional governance systems (Coe et al., 2004).

Globalization of production has resulted in considerable alterations for developing countries, presenting new opportunities and difficulties for their businesses and labor. Over the last few decades, new kinds of coordinated trade between firms situated in different nations emerged, crossing national boundaries. Global production networks are defined by multinational corporations outsourcing production to low-cost sites in developing countries while maintaining their core business in higher value-added, intangible operations. From an economic and social standpoint, the effects of GPNs on emerging countries are varied.

Global production networks that are defined as a globally coordinated nexus of interrelated functions and operations by enterprises and non-firm institutions that generate and distribute goods and services (Coe et al., 2004), aim to capture both the global economy dynamics and regional development considerations including place-specific actor considerations (Song et al., 2020).

Accordingly, through this thesis, it is attempted to approach regional development through the lenses of global production networks.

1.1 Motivation of The Thesis

Given that the theoretical framework of the GPN approach grew primarily out of a geographic concentration on East Asia's newly industrializing nations, its empirical attention has focused chiefly on the production networks for industrial, manufacturing, and services, as well as their leading companies. For instance, using specific case studies in telecommunications, IT and computer manufacturing, food and

clothing retailing, and oil extraction, the GPN framework has provided incisive analysis of the rise of East Asian lead firms and, consequently, regional economic development within the region. However, because of this industrial and service sector centricity, there has been little discussion of value capture trajectories of agricultural production and smallholder farming in the GPN research (Vicol et al., 2019).

One of the starting points of this study is to draw attention to the lack of literature on the global production networks of the agricultural sector. Although global value chains of agricultural products have been frequently studied in the literature, the global production network literature is not mature enough at this point.

Moreover, the main motivation of the study is to examine the current dynamics of the tea industry, which has undertaken the transformation of the Eastern Black Sea Region to a large extent in the past, in the context of global production networks and to open a new field for the sector, which has lost its former attractiveness in the region.

1.2 Research Objective and Research Questions

The main objective of this thesis is to analyze the structure and functioning of the production networks in the Turkish tea industry and to examine that whether integration into GPNs is a path that should be followed in terms of the future of the region.

The main research question that is pursued throughout this document is: "*What is the potential of the Turkish tea industry to integrate with GPNs and can this integration contribute to the development of the Eastern Black Sea Region?*". In order to answer this question and build up an understanding of the tea industry of the Eastern Black Sea Region, the following sub-questions are deployed. Through this sub-questions, it is aimed to comprehend tea industry's key actors, connections to GPNs, and influence on regional development in the given region.

- How does GPN framework approach to the regional development?
- How are global tea production networks organized at global scale?
- What is the state of articulation of the Turkish tea industry in global production networks?
- What are the possible regional development results that the tea industry will provide to the region in case of integration into global networks?
- Can the articulation of the tea sector to global production networks contribute to the development of the Eastern Black Sea Region?

1.3 Methodology of the Thesis

Within the scope of the thesis, the descriptive/qualitative analysis technique is used by the obtained primary and secondary data to explain the current situation of the strategic configuration built in the global production network between lead firms and business actors, intermediaries, and non-firm actors. The reason for choosing the qualitative analysis is the obstacles to obtaining quantitative data from the firms. However, the qualitative analysis is deemed suitable and sufficient to provide adequate accuracy. The data is gathered from reliable sources such as documents obtained from tea firms and government websites, previous research on the sector, and the news on the subject. Additionally, information is gathered through firm interviews.

In order to gain information on sector dynamics, ten factories were requested to be interviewed regarding the issue. While nine of them were interviewed, one factory could not be interviewed due to the prohibition of information flow. During the interviews, the firms were asked about their position in the tea sector, their relations with other actors, their views on foreign companies in the region and their thoughts on sectoral competition and the future of the tea sector.

Three of the interviewed factories are located in Giresun, two in Trabzon and four in Rize. Two of the interviews conducted in Giresun were in Tirebolu district and one

in Eynesil district. Both interviews in Trabzon took place in the district of Of. In Rize, three interviews were conducted in İyidere district and one in Ardeşen district.

During the field study, some of the firms were not working due to the fact that it was the third season of the tea harvest, which constituted a limitation for the study. However, interviews were tried to be considered to differentiate in tea production. Tirebolu 42, Ofçay, Doğuş and Lipton, considered to be differentiated among private firms, are the firms targeted for interviews. While Tirebolu 42 and Doğuş Çay were interviewed, Ofçay, which has stricter measures in terms of information flow, could only be interviewed in a limited way, and Lipton could not be interviewed.

This research process is aimed to determine the possible regional development outcomes that the integration of the Turkish tea industry into the global production networks revealed for the Eastern Black Sea Region. Hence, the dynamics of the Turkish tea industry, strategies developed by the sector actors, and the value capture trajectories for the region are examined throughout the chapter.

In the chapter, lead firms in the tea network are empirically observed to exert strategic network effects over the entire network, albeit to various degrees and in varying ways. In the analysis, national lead firms along with international lead firms are taken into account since the state and the public sector still has a significant influence on the tea market in Turkey. This distinction in the identification of lead firms is important in terms of revealing the distinct strategies of national and global lead firms. Accordingly, Lipton and Çaykur are accepted as lead firms in the country since they have the largest market share.

Along with the obtained information, Tea Law Proposal dated June 2022 is evaluated in terms of the subject since it is of great importance for the sector, and also for this study, because a legal regulation regarding the tea sector has been needed for many years as the tea law that opened the industry to the private sector is still in force despite the passing nearly forty years. Moreover, the related tea law proposal provides insight into how the future of the tea industry is intended to be shaped and includes articles related to integration into the global market.

In the proposal's first article, the purpose and scope of the law are framed. According to the first article, the tea industry needs to be regulated to meet domestic demand through domestic production, and sustainability in the sector needs to be established. Also, some regulations are required to increase the contribution of the tea sector to the country's economy by arranging all stages from production to consumption according to scientific and legal data and bringing the sector to a level where it can compete in global markets. The emphasis on competitiveness in global markets here indicates that the future-oriented setup of the industry includes entering global markets and, thus, integration into the global production networks. Therefore, it is believed that the inclusion of the tea proposal in the thesis will contribute to the objective of the thesis and enrich the research.

1.4 Outline of the Thesis

The following areas are addressed in the thesis.

I. The main focus of Chapter 2 is the theory of global production networks (GPNs). The chapter begins with a discussion of the emergence of the theory. This discussion is followed by a brief explanation of the other theories that lay the foundation for GPNs. Afterward, the components that comprise the production networks will be stated, and the positions of the components in GPNs will be investigated. Following this, the reconceptualization of the GPNs, namely GPN 2.0, will be examined in detail. In the final section of the chapter, the dynamics between regional development and GPNs will be explained.

II. Chapter 3 gives an overview of the global tea sector. Firstly, the development of the sector from the first discovery to today will be explained. Followingly the current trends in the tea sector will be examined. Lastly, the global value chains and production networks of tea sectors in Kenya, Sri Lanka, and Nepal will be investigated. This investigation will be beneficial for the following chapters when

discussing the strategies for the Turkish tea sector to integrate into the global production networks.

III. Chapter 4 is focused on the sector in the Eastern Black Sea Region. Accordingly, the development of the tea sector since the Ottoman Empire era will be explained. Afterward, the current state of the tea industry in the region will be investigated in terms of production, consumption, trade, and prices. In the last section of the chapter, the challenges faced by the actors in the tea sector will be examined.

IV. Chapter 5 is the final chapter of the thesis. In this chapter, the tea sector and global production networks, which constitute the main frame of the thesis and have been examined in detail in the previous chapters, will be examined in relation to each other in the Eastern Black Sea region. For this examinetion the sector will be analyzed in terms of actors, activities, value capture trajectories, and actor strategies. At the end of this chapter, the integration of Turkish tea into global production networks, which is also the central issue of the thesis, and the possible consequences of this integration will be revealed in the context of regional development.

CHAPTER 2

LITERATURE REVIEW

For centuries, human beings have constantly traded goods and services between countries and migrated from one country to another for various reasons. These movements of goods, services, and population have represented the economy's and society's internationalization (Petrella, 1996). Under the influence of the internationalization of the economy, that is, the geographic dispersion of economic activity across national borders (Gereffi, 1999), the structure of global supply chains in which goods and services were distributed has significantly changed. While global supply chains have evolved a great deal in centuries, the change has accelerated even more through modern times. Global supply chains that were previously more local and limited to small cities and regions, have expanded their boundaries and scale to date (Masi & Godsell, 2022).

During the 16th century, the mercantilist school of economic thought in Europe rose to prominence, and it significantly shaped the internationalization of the economy and society. Considering the colonial empires searching all around the world for new resources and markets for their manufactured export since then (Gereffi, 1999), it can be said that internationalization has a long history and has been a notable characteristic of the global economy. Throughout history, internationalization has evolved and taken different forms in pattern and degree (Gereffi et al., 2001; Petrella, 1996). In this process, some developments had become breaking points for changing global supply chains and internationalization structures, leading to significant changes.

In the late 18th century, the Industrial Revolution substantially changed the nature of production in Western Europe. The change was evident significantly in large-scale agricultural production. Under the influence of the Industrial Revolution, this type

of production arose along with factory-based manufacturing. Due to the larger scale of agricultural output and the emergence of increasing levels of work specialization, the division of labor surfaced for the first time. Different people accomplished different assignments through this division and depended on each other for their needs (Coe et al., 2020).

By the beginning of the 20th century, which coincided with the era of mass production known as Fordism, industrial capitalism was largely confined nationally. Therewithal, there were also international production systems that were dominated by self-sufficient and multi-domestic organizations in which transnational corporations reproduced their domestic activities abroad (Coe & Yeung, 2015). After World War II, a global industrial system with production capacity scattered across numerous nations emerged as a result of the explosion of new technologies and products (Gereffi, 1989, as cited in Gereffi & Korzeniewicz, 1990). In the 1960s, international firms had started to slice up their supply chains and outsource some of their goods or services in search of capable suppliers and low-cost offshore. This development has led flows of goods, services, and financial capital to become more intertwined and nations to become more interdependent (Gereffi, 2014; Gereffi et al., 2001). Also, outsourcing the increasing proportion of the manufacturing process has become profitable for firms. This situation represents a breakdown in Fordist production, which is the vertically integrated mode of production (Feenstra, 1998).

During the 1970-80s, large firms in globalized production systems started participating in different countries. This development has led large firms to connect with other firms in other countries and become a part of their global production and distribution processes (Gereffi et al., 1994). At the end of the 1970s, a radical shift away from Fordism and toward a new organizational form that was more dispersed and flexible occurred in the advanced economies of Western Europe and North America (Coe & Yeung, 2015). Even though international trade networks had been set up by firms such as the East India Company or the Hudson Bay Company in the 16th century, they differ from today's global production networks in several ways. Notably, the central focus of the networks that these companies set up was trade and exchange

rather than the organization of production on a global scale (Gereffi, 2005, as cited in Plank & Staritz, 2009).

By the middle of the 20th century, a new era of international competition emerged under globalization, a recent phenomenon that arose from technological developments and a decline in trade barriers. Globalization has enabled sourcing goods and services from locations all over the world, integrating the global economic system, and merging separate national markets into one huge global marketplace (Masi & Godsell, 2022). Consequently, the organization of industries has altered, and production networks have dispersed organizationally and spatially. The world economy has gone through a significant change. It has developed and intensified in ways that were very different from those earlier periods by going not only a change in quantitative terms but also becoming characterized by a qualitative shift (Dicken, 2015; Milberg & Winkler, 2013).

In quantitative terms, there has been a notable rise in foreign direct investment and trade since the end of the 20th century. However, the qualitative shift is even more significant. Today, global production and international trade organization are structured around highly fragmented and geographically dispersed value chains. Under these circumstances, transnational corporations (TNCs) have changed their operation methods and how they compete in the globalized world economy by slicing up their production and moving some parts to locate them globally (Staritz, 2012). The lead firm buyers and multinational enterprises from significant consumer markets have been linked to developing countries by outsourcing their production sites to these low-cost locations (Coe & Yeung, 2015; Dicken, 2015; Gereffi, 2018, as cited in Kano et al., 2020).

As a result of all these developments, the world economy has witnessed intense incidents that led to changes in structure and the world economy dynamics. The international division of labor has differed from its classic pattern. Today, industrialization has been shaped by the integrated global trade and production system instead of where developing countries export primary commodities to

industrialized countries in exchange for manufactured goods (Korzeniewicz, 1992). The new form of international trade has paved the way for nations to specialize in from industry and other sectors to even between different stages of production processes (Gereffi, 1994).

Today, most products are not produced and assembled in one location. To illustrate, while the semiconductor chips of a computer are being built in New Mexico, the disk drive of the same computer is made in the Philippines, Singapore, or Thailand. Likewise, computer parts such as monitors are produced in Japan, and circuit boards in China. After all computer parts are produced, they are assembled in Mexico or Hungary (Schipper & de Haan, 2005 as cited in Plank & Staritz, 2009).

Unraveling the vast inequalities created by the global economy and its complexities presents many conceptual and empirical difficulties. The methods that are used to solve these complexities must be capable of incorporating the complex activities and interrelations between various interest groups and institutions that operate at different scales and through power relations that are asymmetrical and dynamic with the aim of generating certain geographical outcomes (Coe et al., 2008). Today, integration into the global economy has become synonymous with development and is accepted as the only choice for developing countries to pursue, considering the dynamic trajectory of export-oriented economies of East Asia (Bair, 2005; Gereffi et al., 2001).

Since the late 20th century, the theorization of the global economy has faced significant challenges due to rapid and abstruse developments. As a result, the analytical emphasis has changed away from international trade, the most fruitful area of social science research, and toward tightly coordinated global chains and networks (Coe & Yeung, 2015). While this shift has taken place, the economic geography discipline, which aims to build an advanced framework for examining the developments in economy and the formation of territory, has advanced significantly. Studies that drive the process have revealed the continuing spatial inequality in both consumption and production, the distinctive roles of institutional and structural

conditions in different scales, and the strategies and responses of not only firms but also non-firm organizations, and government bodies that drive the global economy (Henderson et al., 2002; Hess & Yeung, 2006).

Consequently, many studies have been carried out on the chain and network approaches, and a variety of terminologies and concepts has emerged to understand the dynamics of the changing global economy (Coe & Yeung, 2015). As much as the terminologies used in these studies have overlapping aspects, they come from different intellectual domains (Henderson et al., 2002). These developed concepts can be roughly categorized in two ways. The first categorization is made over the literature on which the concepts' origins are based. Accordingly, they can categorize as approaches that evolved within the economic development framework and that stem from the business managerial literature. Secondly, they can categorize as approaches that adopt a chain or network perspective (Henderson, 2002).

These productive activities have been given various names, such as commodity chain, value chain, value network, or input-output analysis (Sturgeon, 2001). Even though many concepts have been developed to analyze the global economy, they were not quite adequate to portray the increasingly intricate and interconnected nature of economic activity under the influence of globalization. Since all existing and developed models operate at either micro or macro levels, a concept that can go beyond this was needed (Hess, 2018). This necessity has resulted in the development of the global production network concept, which is the main theory used in this thesis.

In light of this, the global production network is explored comprehensively in this chapter of the thesis. Accordingly, the emergence of global production networks and their historical antecedents are narrated in detail at the beginning. Followingly, two GPN concepts are explored. The first concept, GPN 1.0, is the initial concept developed by Coe and Yeung, and GPN 2.0 concept is a reconceptualized version of the former. After this exploration, the relationship between GPNs and regional development is explained.

2.1 Historical Antecedents of Global Production Networks

Since 1980, numerous new theories have been developed based on the meta-theory of the division of labor together with theories in various fields such as economics, sociology, economic geography, and management science. These theories, depicted chronologically in Figure 2.1, include "value chain, value-added chain, networks and embeddedness, and actor-network theory (ANT), global commodity chain (GCC), and global value chain (GVC)" (Cui & Liu, 2019). The 'global' term here, refers to a high degree of geographic expanse and cross-border functional integration rather than interconnectedness of these networks and chains throughout the entire world (Dicken, 2015).

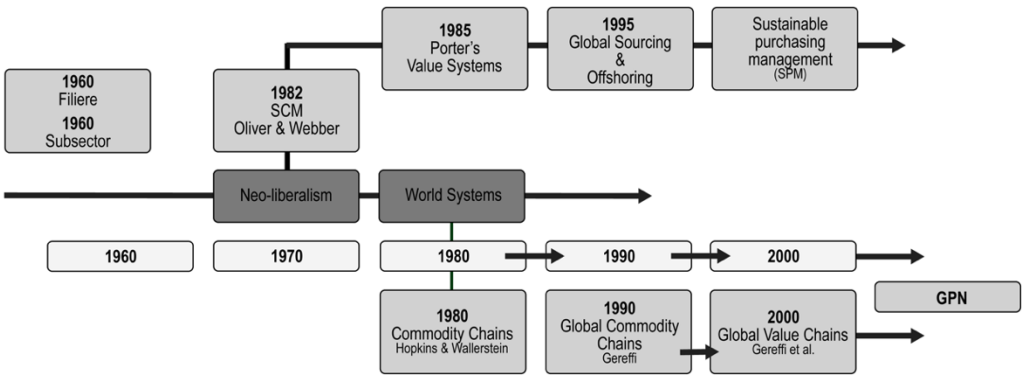


Figure 2.1. History of GVC/GPN Concepts (Cui & Liu, 2019)

In order to grasp the global industry organization and its impact on development, global value chain and production network theories have been widely used (de Marchi & Alford, 2022). Specifically, the network approach has become the key form of organization within the modern global economy (Coe & Yeung, 2015) and has depicted a substantial advancement in the global production system. The concept has provided development opportunities for the countries involved in globalization. From an economics perspective, the origin of the GPN theory goes down to the division of labor, which also provides the main theoretical base for the concept. However, the evolution of the concept has presented difficulties to both the traditional and international division of labor. The global production systems, and

the forces that drive them, cannot be explained solely by these traditional theories. Hence, the need to develop a new theoretical framework arose (Cui & Liu, 2019).

Derived from these developed theories, researchers such as Dieter Ernst and Jeffrey Henderson presented the global production network concept in 1999 (Cui & Liu, 2019). The concept originates from the division of labor, chain, and network theories. Particularly the division of labor theories are the "most fundamental meta-theories" that the concept is built upon. The chain theories, on the other hand, are the direct antecedents of the concept. Lastly, the GPN concept is theoretically based on the network theories such as embeddedness and actor-network theory (Cui & Liu, 2019). In Figure 2.2, the overview of the GPN approach is demonstrated.

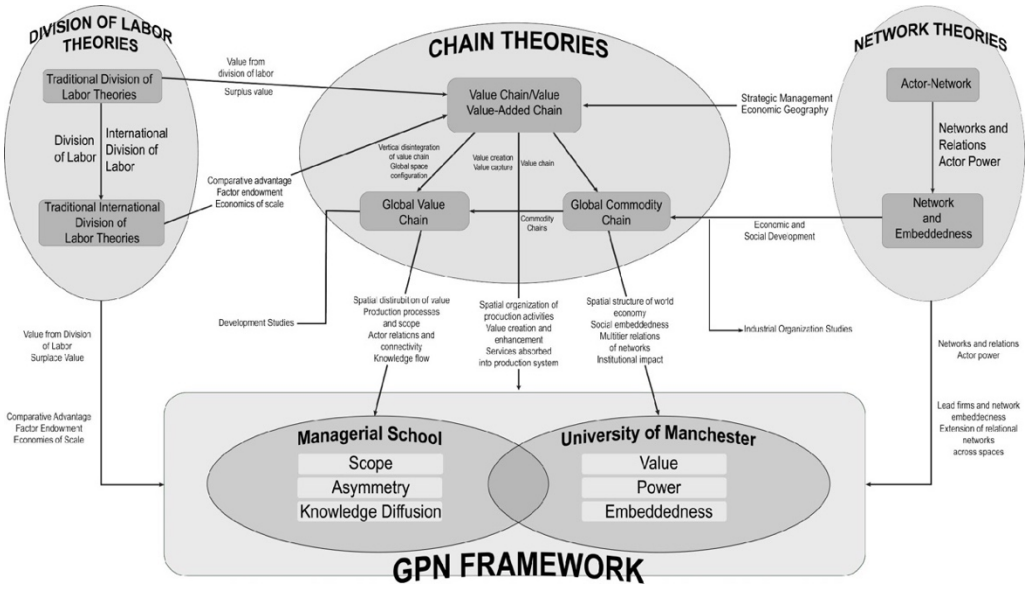


Figure 2.2. Overview of the GPN Research (Cui & Liu, 2019)

Two different approaches have been developed in the global production network research. Dieter Ernst is a representative of the first one, which the managerial school has adopted. The second, which is represented by Jeffrey Henderson, is adapted by the University of Manchester (Cui & Liu, 2019). In this thesis, the Manchester School approach has been taken into account. Therefore, the managerial approach will be briefly mentioned and considered as another theoretical antecedent of the GPN framework of the Manchester school.

Under the influence of the changing structure of global competition, some interconnected transformations have taken place in the organization of global economic activities (Ernst & Kim, 2002). As GPNs have become widespread, they started to take part in complementing the existing competencies of international corporations by providing them with "quick access to lower-cost capabilities" (Ernst, 2002). Moreover, the GPNs have escalated as a substantial corporate innovation in international operations. They present opportunities for developing countries to advance their local competencies by catalyzing the global diffusion of knowledge. All these developments have changed international innovation and production geography. A new divide has occurred in industrial organizations. Multinational corporations are transformed into 'global network flagships' which integrate their dispersed customer bases, knowledge, and supply into GPNs (Ernst & Kim, 2002).

In the managerial school approach, global production networks are defined as a substantial innovation in the international business organization that links concentrated value chain dispersion across the firm and national boundaries while integrating hierarchical layers of actors in the network (Ernst & Kim, 2002). The representatives of the approach have mainly rested on global value chain research in their studies, and they have specified three fundamental features of global production networks: "scope, asymmetry, and knowledge diffusion" (Cui & Liu, 2019).

According to the approach, the GPN framework concentrates on the relations between business organizations that take on diverse functions and scopes. It also underlines the central role of flagships, interdependence, and power asymmetry in networks. Power is distributed in a dynamic way throughout the participants of the network. Also, the R&D activities and technology transfer are among the drivers of GPN growth. Knowledge diffusion led by firms, knowledge sharing, and flows and its effect on upgrading the capacity of local suppliers and development of the local industries is concentrated explicitly in the approach (Cui & Liu, 2019).

The other approach for global production network is adopted by the University of Manchester. The approach is mainly represented by Jeffrey Henderson. Instead of

following GVC research like the Managerial School approach, Henderson and other researchers follow the global commodity chain approach route. Accordingly, GPNs consist of three essential elements: value, power, and embeddedness (Cui & Liu, 2019). The work of this group, essentially based on a network conception of economic activity (Yeung, 1998 as cited in Bathelt, 2006), focuses on the social process that contains the product/service productions, in addition to the reproduction of factors such as capital, labor, and knowledge (Cui & Liu, 2019). Furthermore, criticizing the narrow-minded implications of regional analyses, the group argues that a spatial perspective should be integrated into global production networks (Bathelt, 2006).

Table 2.1. Historical Antecedents of GPN Framework (Hess & Yeung, 2006)

Historical Antecedents	**Value chain framework** since the 1980s	**Networks & embeddedness perspectives** since the mid-1980s	**Actor-network analysis** since the mid-1980s	**GCC & GVC Analyses** since the mid-1990s
Main Disciplines	strategic management	economic sociology, organization studies, strategic management	science and technology studies poststructuralism in social science	economic sociology, development studies
Key Concepts	stages of production, competitive strategies, competitive advantage	interorganizational relations to business formation and performance, intertwined relationships between economic action and social structures	heterogeneous relations actants as humans and nonhumans control from a distance	commodity production as a sequential chain, value creation in chain organization
Major Authors	Michael Porter	Ronald Burt, Mark Granovetter, Carlos Jarillo, Jan Johanson, Nitin Nohria, Walter Powell	Michel Callon, Bruno Latour, John Law	Dieter Ernst, Gary Gereffi, John Humphrey, Hubert Schmitz
Relevance for the GPN in Economic Geography	spatial (re)organization of production activities, importance of value as a concept in GPN, production as both manufacturing and service activities	lead firms and their embedded networks, networks as relations stretching across space, value creation, enhancement, and retention in networks	networks and relations as foundation in GPN analysis power relations among actors in GPNs	spatial configurations of GPNs and economic development outcomes, institutional influence on GPNs

Like Cui and Lui, Hess and Yeung (2006) determine the antecedents of the GPN framework considering their historical contexts. Accordingly, the global production network framework has rested on several historical precursors. Hess and Yeung

(2006) identify four majorly influential antecedents based on their historical contexts: the value chain framework; the networks and embeddedness perspectives; the actor-network analysis; and the global commodity/value chain analysis (Table 2.1).

In reference to the perspective of Hess and Yeung on historical antecedents of global production networks, the related frameworks will be explored in the following sections of the chapter.

2.1.1 Value/Value-Added Chain Frameworks

In the late 1980s, the value chain framework, which is the first historical antecedent of the global production network, had begun to become prominent in various research areas and policy circles (Hess & Yeung, 2006). Initially, Michael Porter developed the framework during his research on competitive advantage (Porter, 1985, as cited in Ricciotti, 2020). Afterward, it has been used to analyze the globalization processes (Gereffi et al., 2001). Particularly Peter Dicken's work (1986) had a significant role in bringing the value chain framework to the field of economic geography (Hess & Yeung, 2006).

Value chains can be briefly defined as the conceptualization of the activities needed to supply a product or service to the final customer. They describe how a product gains value from its design and manufacture to its service to the end-user (Ensign, 2001). The value chain framework surpasses the assumption that the entire production process of a product is finished by one country. It clarifies the current international division of labor and economic development (Cui & Liu, 2019).

In value chains, the activities that are needed to supply a product or service add value, directly or indirectly, to the product/service delivered to the end user. They disclose value creation, enhancement, and capture processes in different spatial scales (Cui & Liu, 2019; Sushil, 2018). Activities that add value directly consist of the direct value chain, such as logistics -both inbound and outbound-, operations, marketing, sales, and after-sales services. The activities that add value indirectly, such as

technology development, human resource management, firm infrastructure, and procurement, are handled in the indirect value chain (Sushil, 2018). These activities that form firms and their value chains are demonstrated in Figure 2.3.

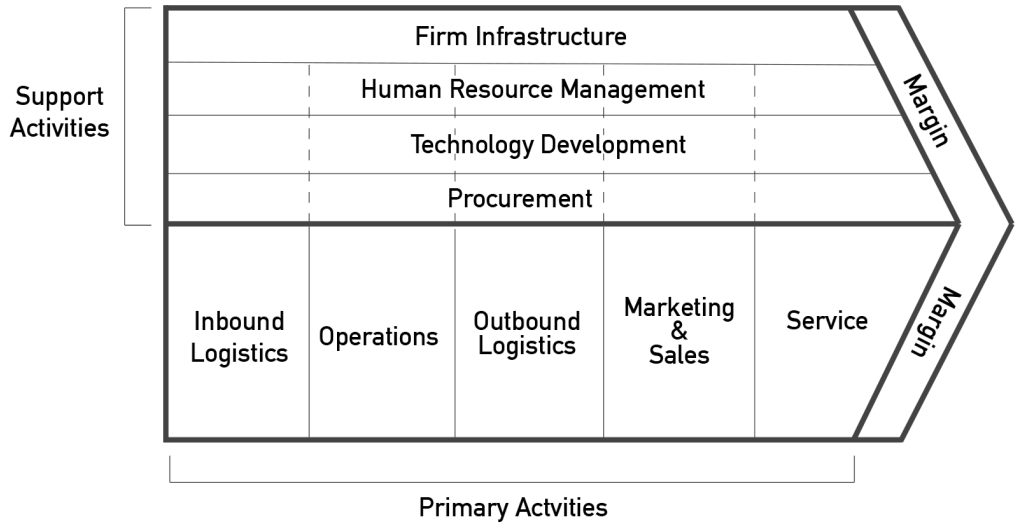


Figure 2.3. Generic Value Chain (Porter, 1985)

The value chain framework represents of value-adding activities of a firm, and it aims to think strategically about a firm's business activities in terms of costs and contribution (Ricciotti, 2020). Following this, Porter depicts the value chain as an essential strategic planning instrument. Porter also points out that the competitive advantage that an individual firm has is the advantage in given value chain sections with strategic value. For a firm's competitive strategy to be successful, the firm must figure out its capabilities and the needs of its customers (Cui & Liu, 2019; Kumar & P.V., 2016; Porter, 1985, as cited in O'Sullivan & Geringer, 1993).

According to Porter (1998) considering a firm as a whole is not efficient for competitive advantage to be understood. It arises from many activities a firm accomplishes in from designing to the marketing its product. These activities can create a base for differentiation and contribute to a firm's relative cost position. For analyzing the sources of competitive advantage, a systematic way of digging into all the activities a firm accomplishes and their interactions is indispensable. Therefore, in value chain analysis, the first step is to anatomize the chain into its essential

activities. Afterward, the potential to add value by differentiation or cost advantage is assessed. Lastly, and most importantly, the strategies for enabling the firm to gain sustainable competitive advantages are determined. Effectively managing these activities in the value chain is vital for the profitability of companies (Kumar & PV, 2016).

With Porter's value chain approach being a seminal work for chain concept, it has limitations since the firm or interfirm network bounds it. Moreover, it disregards matters of corporate power, institutional settings for firm-based operations, and the geographical configurations containing the chains (Henderson et al., 2002).

Besides Porter's value chain framework, the value-added chain concept, developed by international business scholars, is an important starting point for making sense of the evolution of the industrial organization and international trade since it has focused on the strategies of countries and firms in the global economy (Gereffi et al., 2005). The objective of the value-added chain is to analyze a firm's competitive position in a global industry and structure the decision on strategic allocation. The concept differs from the value chain concept by extending its focus to countries and regions (Cui & Liu, 2019). Kogut (1985) describes the value-added chain as a process in which inputs such as labor and material are combined with technology, and then processed inputs are assembled, marketed, and distributed. In this process, a single firm can have a different position, consisting of only a single link in the process or being vertically integrated. Considering the aim of the concept, which is to examine the competitive advantage in global strategy, the value-added chain offers more for reflecting the relationship between global space reconfiguration and the vertical disintegration of the chain (Cui & Liu, 2019).

Despite their limitations, value/value-added chains have provided crucial ground-work for the global production networks framework. The concepts have informed the global production network framework regarding spatially organizing the production process and the centrality of value creation (Hess, 2018). Particularly Porter's concern on the ways to create, enhance and capture value in different scales

has predicated the GPN framework developed by scholars associated with the Manchester School. In this framework, value is framed by Marxian notions of economic rent and surplus value. Therefore, the GPN framework forms an integrated frame by combining different strands of value analysis. The value chain framework has also contributed to the evolution of the GPN by apprehending that manufacturing and service operations in composing the production are inseparable conceptually (Hess & Yeung, 2006).

2.1.2 The Network and Embeddedness Perspective

The chain approaches, which emphasize a vertical sequence of events that leads to the delivery, consumption, and maintenance of goods and services (Sturgeon, 2001), have deficiencies in that they depict process of production and distribution as linear and vertical. Considering that these processes consist of immensely complex networks and economic lattices that are multidimensional and multilayered cannot be explained by only vertical links, a network-focused and relational approach is needed to gain more insight in production systems (Henderson et al., 2002). In light of this, there has been a growing consensus on the idea that the network concept is one of the most appropriate tools to unravel the complex nature of the global economy (Coe et al., 2008).

Even though network theory has been used recently in analyzing the global economy, it is not a new term, and it began to attract sociologies as social network analysis at the beginning of the 20th century. The sociologies used social network analysis to investigate social interaction as the micro foundation of society. Afterward, the theory was enriched by embedding economic activities in the social network and embeddedness. Subsequently, researchers from different disciplines such as organization studies, economic sociology, and strategic management have used the social network. Despite its wide application in many disciplines, the concept was not used in economic geography until the 1990s (Cui & Liu, 2019). Dicken and Thrift (1992; as cited in Cui & Liu, 2019) played a significant role for economic geographers in

considering embeddedness and networks in the geographical analysis of firms and their productive activities. Afterward, the concepts became a cornerstone in the analytical context of the global production networks in economic geography (Cui & Liu, 2019).

To sum it up, the network and embeddedness of economic activity have contributed to the global production network framework concerning organization of economic activity within and between the firms and became critical components of the framework (Hess, 2018). Nevertheless, while the embeddedness framework analyzes the structures of network relations, it is not cut out for exploring the roles of geographic actors like firms. Considering the probability of the disappearance of actors in complex network relations, it became essential to look into the nature and characteristics of networks and their constituents (Hess & Yeung, 2006). Consequently, actor-network analysis became the third historical antecedent of the global production networks.

2.1.3 Actor-Network Theory

The actor-network theory has its roots in science and technology and scientific knowledge sociology in the early 1980s. The main focus of the theory has been the emergence of societal order. Therefore, the studies on the subject mostly center on accomplishing and stabilizing the order in space and time (Thór Jóhannesson & Bærenholdt, 2020).

The actor-network theory emphasizes how objects and agencies are linked in heterogeneous networks. According to theory, the world consists of heterogeneous relationships and practices in which humans and non-humans are accepted as possible actors. The structures are arranged through these relationships and practices, and actors are assembled in the recursive networking process. Network actors cannot be understood without their relations and connectedness to other actors (Law, 1999 as cited in Henderson et al., 2002; Jóhannesson & Bærenholdt, 2020).

The methodological principle of the theory is based on the refusal of all distinctions between classes of possible actors that were given before. Instead, all actor categories are treated as symmetrical effects of relational practices. In addition, the theory moves beyond dichotomies and binaries of the guiding principles of the modernist worldview in which nature is against society and the mind is against the body (Jóhannesson & Bærenholdt, 2020).

During the 1990s, the theory attracted the attention of economic geographers in search of the ways the economy was positioned on a broader network of social relations and cultural institutions. In this context, the theory has become progressively used to analyze the interconnections between culture and economy and how the spatial organization of the capitalist economy is shaped by socioeconomic linkages (Jóhannesson & Bærenholdt, 2020). This geographical adaptation of the actor-network theory is crucial for Dicken et al.'s (2001) non-essentialist version of the global production network framework. As humans and non-humans are accepted possible actors in actor-network theory, actors such as firms are considered constitutive parts of the broader networks instead of individual actors by themselves. The emergent power and effects are carried out through these networks over space (Hess & Yeung, 2006). In this sense, spatial fields and relational scopes of influence, power, and connectivity are used to describe space and distance (Harvey, 1969; Murdoch, 1998, as cited in Henderson et al., 2002).

The actor-network theory has contributed to the global production network framework through its nonessentialist approach to studying networks and actors. The theory has created an analytic space for examining the framework's multiple actors and their relations (Hess, 2018).

2.1.4 Global Commodity and Value Chain Analyses

The contemporary economic processes that have emerged under the influence of globalization contain complex global trade relations and functions. Therefore, it has

required a different framework for capturing this complexity. Since the 1990s, many concepts have been proposed to unpack these complexities by scientists with different professional backgrounds, such as economists, political economics, and economic geographers (Starosta, 2010). One of the proposed chain approaches for understanding the relationship between the activities and actors involved in the economy is to delineate them as links in a commodity chain (Bair, 2009).

The initial use of the term 'commodity chain' was within the world system theory in an article in which the authors Terrence Hopkins and Immanuel Wallerstein (1977) outline world-systems program. Thereby, they aim to separate their perception of the territorial scope of capitalism from the conventional approach to globalization. They did not see the development of the global economy as a sequential process whereby the expanded foreign trade geared to the international market steers the evolution of national markets. Instead, the authors began with a radically different presumption in which they sought to understand the processes that contain productive activities in that the set of inputs culminated in an ultimate consumable item (Hopkins & Wallerstein, 1977 as cited in Bair, 2005). Hopkins and Wallerstein (1986) sum up these processes as a network of labor and production procedures that results in a finished commodity and call them 'commodity chains'.

A broad commodity chain approach is used for analyzing capitalistic processes, uneven development, and unequal surplus value distribution within chains in world-systems theory. In this context, it is questioned how a hierarchical world system that contains the core, semi-periphery, and periphery is structured and reproduced by commodity chains (Plank & Staritz, 2009).

Drawing explicitly on Wallerstein's work in world-system literature, Gereffi and Korzeniewiecz made the determinative contribution that altered the descriptive and heuristic analysis of Porter and other researchers into an analytical framework. They identified 'global commodity chains' as a new conceptual category to apprehend the change in the spatial organization of production and consumption in the global economy (Gereffi & Korzeniewicz, 1994 as cited in Coe & Yeung, 2015; Gereffi et

al., 1994 as cited in Kaplinsky, 2013). The global commodity chain approach has been accepted as a highly influential framework (Niebuhr, 2016; Starosta, 2010).

The global commodity chain concept has emerged in production systems that bring on particular patterns of coordinated trade and directly link the value-added chain to the global organization of industries and trade (Gereffi, 2011, 2014). Production systems connect firms' economic operations with organizational and technological networks that allow firms to develop, produce, and distribute certain commodities. In the transnational production systems that shape the capitalist economy, economic activity is international, and its organization is global (Dicken, 1992; Ross & Trachte, 1990, as cited in Gereffi, 2018).

When coming up with the concept of global commodity chains, Gereffi combined the perception of Hopkins and Wallerstein (1977) on the notion of world systems with the perceptions of strategic management scholars such as Porter (1990) and Kogut (1984). Particularly Kogut's perspective on the global strategy of firms played an essential role since it was one of the first mentions of firms that make bets on specific value-added chain links and capture rents by locating chain segments in various countries (Lane & Probert, 2009). These influences of Kogut and Porter made Gereffi's concept differ from the commodity chain approach of world-systems theory, where the concept's roots lay.

Bair (2015) establishes two main disjunctures in this sense. The first disjuncture is their disagreement on the novelty and salience of globalization. While the commodity chains of world-system theory concentrate on the historical reconstruction of the wheat flour industries and shipping during the 16th century, the contemporary global commodity chain approach focuses on the inter-organizational dynamics of global industries in the global economy. It takes a sectoral approach for this matter. The world-systems theories claim that the commodity chains are not a recent phenomenon and have been integral to the capitalist world economy since the long sixteenth century. On the other hand, contemporary global commodity chain

advocates contend that global commodity chains are an organizational form related to a more recent economic integration process (Bair, 2005).

A GCC comprises inter-organizational networks that connect individuals, businesses, and nations with the global economy and are clustered around a single good or service. These networks emphasize the social embeddedness of economic organization since they are locally integrated, situationally specific, and socially constructed (Gereffi et al., 1994). The global commodity chains approach contends that production internationalization is gradually becoming integrated into globalized coordination systems and characterize them as producer-driven and buyer-driven commodity chains (Bair, 2005).

In producer-driven chains, the integrated transnational producers in capital and technology-intensive industries that govern the vital product and process technologies control the key parameters. On the other hand, in buyer-driven chains, large retailers, such as Tesco and Walmart, and brand-name firms that focus on design and marketing, such as Nike and GAP, set the key parameters. These retailers and brand-name firms do not always have direct ownership of any production facilities, but they control the production process by their competency in setting prices, process standards, product specifications, and delivery schedules. Mainly developed country firms that establish networks for global sourcing to provide labor-intensive consumer goods from low-cost suppliers in Latin America, Asia, and Africa have taken part in the evolution of buyer-driven chains (Barrientos et al., 2011; Humphrey & Schmitz, 2001). Hence, buyer-driven commodity chains were vital for the rise of export-oriented economies of East Asia. In this process, the commodity chain framework has gained attention from various economic agents that could apply substantial power on global networks of production and distribution from both the demand and supply sides (Gereffi, 2011). As developed-country firms have started to outsource their production, US retailers and brand-name firms have joined them. As these 'global buyers' has become the key drivers in shaping the networks of production and trade that are dispersed globally, commodity chains

fundamentally have shifted from producer-driven to buyer-driven chains (Gereffi, 2011, 2014).

Gereffi envisions networks formed around chain nodes, but in the main, he emphasizes the linearity of border-crossing chains. His emphasis is useful because the network organization, governance, and locations are fundamentally affected by the ways that chains can be divided. The chain concept also highlights the sequential and interconnected nature of the various value chain components and the necessity for lead firms to optimally reintegrate these components despite their fragmentation and spatial dispersion (Lane & Probert, 2009).

The value chain encompasses the stages required for a product or service, from the idea stage to its delivery to final customers. This process involves physical transformations and the input of various producer services (Gereffi et al., 2001). The global value chain, an evolution of global commodity chains, mainly focuses on how value is created and captured through these different stages. It also avoids the limitation of the 'commodity' concept (Gereffi, 1994 as cited in Dolan & Humphrey, 2004; Gereffi, 2011).

Since the beginning of the 21st century, the global value chain framework has been popular as a tool for analyzing dispersed production networks and supply chains (Gereffi & Lee, 2012). The concept has been used for grasping the industry system operations around the world. It provides information on how capitalist processes create their winners and losers by generating opportunities and constraints for different actors and geographies in the global economy (Neilson, 2014).

The GVC approach has examined the global economy from two opposing sides, top-down and bottom-up. Governance of the global value chains, which concentrates primarily on lead firms and the international industry organization, is the fundamental concept of the top-down approach. On the other hand, upgrading, the primary concept of the bottom-up approach, deals with strategies that economic stakeholders use to preserve and improve their global economy (Gereffi, 2011).

2.2 Components and Conceptual Categories of GPN 1.0

Since the late 1990s, the global production framework has been developed as an analytical framework by scholars in international economic sociology and economic geography, mainly based at the University of Manchester (Hess, 2018). As the framework becomes more heterogeneous, vibrant, and capacious, it has become a part of a broader interdisciplinary research community besides economic geography and economic sociology in which it is anchored (Coe & Yeung, 2019).

Given these developments, global production networks analysis and their relations to social and economic development at different scales, from local to global, achieved a lot over the last few decades. The growing body of literature on global production networks has been searching for answers to how global production networks construct and evolve. Furthermore, the governance structure driving the process, the winner and losers of the process through incorporation in or exclusion from GPNs, and the places in which all of these occur are investigated. As mentioned earlier, there are two strands of global production network, the Managerial School and the Manchester School. As a means to answer the questions, the Manchester School perspective is more appropriate than the Managerial School since it intends to provide a more functional conceptualization of the GPN than that of Ernst (Henderson et al., 2002).

While the core conceptualization of GPN and its historical antecedents, GCC and GVC, are similar, the GPN concept differs from the GCCs/GVCs in several crucial ways. Primarily, the GCC/GVC frameworks are linearly structured, whereas the structure of GPNs is exceeded such linearity to include diverse network configurations. Secondly, GPNs contain all relevant actors and their relations, while GCCs/GVCs narrowly focus on governing inter-firm transactions (Coe et al., 2008). As the network perspective considers networks as multidimensional and multi-layered lattices of economic activity, the GPN framework acknowledges that diverse organizational formations can emerge in varying time and space settings (Dicken et al., 2001 and Dicken & Malmberg, 2009, as cited in Weller, 2006). Due to their

inherently dynamic nature, global production networks are constantly in flux in both organizational and geographical senses (Coe et al., 2008).

Moreover, the approach draws more attention to the territorial dimension and traces the way production networks interact with regions at the sub-national scale. Since sociologists developed GCC and GVC approaches, lead firm dominance and inter-firm coordination have formed their respective cores. On the other hand, the GPN approach focuses on the mutual influence of firms and regions, which is the primary concern of economic geographers (Scholvin, 2020).

Global production network approach underlines the diversity of horizontal and vertical linkages in production processes. As they are multi-scalar and consist of non-firm actors as well as firm actors (Scholvin, 2020), Henderson et al. (2002) depict GPN as a broad relational framework which aims to comprehend the processes of economic globalization and their economic and social dimensions at global, regional and local scales. The framework combines various value chain perspectives to construct a single analytic framework compared to GCC/GVC frameworks. The GPN focuses on the difference between different production processes in value creation and investigates their spatial consequences (Cui & Liu, 2019). It also accents the localization in the globalization process in addition to mechanisms at global and regional scales and their impacts. The framework argues that the interaction between globalization and localization can improve local development and social welfare. It explains the changes in global production organizations and provides a new analytical framework with a better perspective on production organizations for researching globalization and the development of industries and regions (Cui & Liu, 2019).

Methodologically, the global production network framework of Henderson et al. focuses on five issues: (1) the network of firms that are involved in the R&D, design, production, and marketing of a product as well as their global and regional organization; (2) corporate power distribution and change within those networks; (3) the importance of labor and processes in which value is created and transferred; (4) the

institutions incorporated into the supply chain where they have location-specific impacts on firm strategy; (5) the consequences of all these issues in terms of upgrading in technology, value capture and value-adding, economic well-being for the firms and societies entangled in the chains (Cui & Liu, 2019).

The structure of GPN framework is constructed on three conceptual categories (Figure 2.4): value, power, and embeddedness (Henderson et al., 2002). These categories examine how a specific place plugs into a specific GPN (Scholvin, 2020). Furthermore, the coherent integration of these elements into the framework is a vital determining factor for the success of the framework (Foster & Graham, 2017).

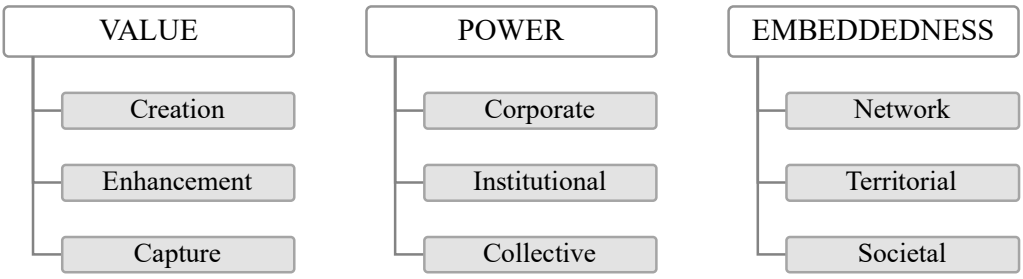


Figure 2.4. Value, Power and Embeddedness in GPNs (Scholvin, 2020)

The first conceptual category of the GPN framework is value. Henderson et al. (2002) consider two nations of value: surplus value in Marxian notions and the conventional notions associated with economic rent. In this context, value is examined in terms of creation, enhancement, and capture. Initially, in the first notion of value, the value is accepted as a surplus value that is generated in transnational production systems. Issues that have broad outcomes for socioeconomic development, such as employment, working conditions, and productivity, are the main focus areas in this notion. Also, the circumstances under which they are reproduced are substantial (Henderson et al., 2002; Hess, 2018).

In the second notion, the various forms of rents that a firm can attain from the market and non-market transactions within GPNs are considered as value. Rent is created when a firm is able to isolate rival firms from the competition by creating barriers to entry through access to scarce resources (Coe & Yeung, 2015). The various forms of rent are achieved through different circumstances. For instance, technological rents

are related to asymmetric access to advance products and process processes. On the other hand, brand rents are attained by a robust market presence, brand-name prominence in major markets, and consumer preferences. Moreover, organizational rent is attained by optimization of production processes and skills of management and organization, and relational rents are achieved by the management of strategic relations with other firms and SMEs in the wider GPN and developing strategic alliances. The rents are not limited to these. Additional rents may also occur through diverse circumstances. For instance, trade policy rents can be generated through the product scarcities created by strictly regulating and restricting global trade (Henderson et al., 2002).

As a source of income, rents are also cumulative and dynamic since they demand considerable investment over time. Particular firms prefer to specialize to a certain extent in inter-firm and extra-firm network relations instead of creating all these various forms of rent. Lastly, the value can take various forms due to transfer via GPNs. After determining the value attributes of a certain GPN, it is feasible to take into account value enhancement potential through the technology and knowledge transfer and industrial upgrading processes between firms. Eventually, it is essential to determine the firms and the locations in the global production network that manage to capture value (Coe & Yeung, 2015).

Regarding economic development, the value creation process is complemented by value enhancement and value capture processes (Hess, 2018). Value enhancement occurs under a variety of conditions. Factors like the characteristics and scope of the technology transfers, the extent to which firms in the network involve with suppliers and subcontractors to advance on the quality of products and technological development, whether demands for competence in certain labor processes rises in time, and whether local firms may begin to generate their own relational, organizational and brand rents are all critical in the value enhancement process. Besides, the influences of national institutions like government agencies, and employer associations, to which the firms are subject, may be critical for value enhancement possibility (Henderson et al., 2002).

However, the value capture process differs from the value creation and enhancement processes. Mainly, value capturing is crucial not only for the firms in the production networks but also for the places and societies to which they are linked (Hess, 2018). The value capture process is related to various factors. These factors are (1) property rights characteristics and thus laws regulating ownership structures and the profit repatriation; (2) the scope of firms that are domestically owned, entirely foreign-owned, or share equity as in joint-venture arrangements; and (3) the structure of corporate governance in given national contexts (Cui & Liu, 2019; Henderson et al., 2002). The first factor on the property rights and the laws that govern the ownership, and the repatriation of profits can be significant, as the second factor on ownership status has been decisive since it has been argued in the long history of the political economy of development. In the third factor, the extent to which corporate governance is stakeholder principles, in preference to shareholder dominance, has a substantial role in whether the creation of value in a certain location is retained there and put to use for the interests of the common good (Henderson et al., 2002).

In GPNs, the power relations among the various network actors determine the ways and locations where value creation, enhancement and capture take place (Hess, 2018). In this context, power is depicted as an actor's ability to influence the behavior of another actor in a way that contrasts with the interests of the second actor. Additionally, it can mirror the capability of an actor to oppose an undesirable demand by another (Coe & Yeung, 2015).

In global production networks, power is interpreted on three assumptions. Firstly, power is considered relational, which means that it is not a product that can be accumulated and stocked, like land or money. Instead, it diversifies in relation to the network actors, the assets they have available, and how they are mobilized. Secondly, power structures are transaction-specific, meaning that they, in a given network stage, will stimulate and be stimulated by power relations at the other stages of the network. GPNs can be viewed as a set of exchange relationships, with the value ability of network participants affected by the power balance variations along the network. Lastly, since there is always some degree of interdependence and mutual

interest present, any inter-firm relationship cannot be based solely on power. Firms in a production network rely on one another and collaborate for mutual benefit, although their relations are rarely symmetrical (Coe & Yeung, 2015).

Power can be mobilized in GPNs by institutions, collective actors, and corporate actors (Coe, 2020). Three forms of power are significant in global production networks: corporate, institutional, and collective power (Henderson et al., 2002)

Firms exercise corporate power based on the capabilities of the firms, the resources accessible to them, and their positions within GPNs (Hess, 2018). In GPNs, the lead firms have the ability to affect decisions and allocation of resources in their own interests. Even though power, in most cases, is not symmetrically distributed in production networks, lesser firms occasionally have sufficient autonomy to develop and implement their own strategies to upgrade their business. Furthermore, in the main, being incorporated into networks allows lesser firms to combine with other firms to enhance their collective position within the GPNs (Henderson et al., 2002). Corporate power must be complemented by acknowledging additional sources of power relationships, most notably the institutional power held by the state and supra-state institutions. Also, the collective power of trade associations, labor unions, non-governmental organizations, and the like may affect the nature and structure of GPNs (Coe & Yeung, 2015).

Institutional power is put to use by various institutions. These institutions include (1) the national state and local state when the national state is organized as a federal polity, (2) international interstate organizations ranging from the increasingly integrated EU to looser confederations such as ASEAN or NAFTA, (3) the Bretton Woods institutions and the WTO, (4) the various United Nations agencies, and (5) the international credit rating agencies, that have a distinct institutional form of institutional power. Power, inherently asymmetric in GPNs, varies within and between these five institution categories (Henderson et al., 2002).

Non-firm actors integral to global production networks, such as state and civil society organizations, use a power that affects firms' operations. Notably, state

organizations use their power through their different roles for distinctive objectives. For instance, through authority, they use power to regulate and facilitate economic activity. Also, they use producer power using state-owned enterprises, and as major consumers, they exercise buyer power (Hess, 2018). To illustrate, some national states in East Asia, such as Taiwan, South Korea, and China, have the most impressive ability to influence private companies in the direction of development and industrialization. However, states as different as Indonesia and the United Kingdom have demonstrated much less ability. The power of inter-state agencies has the potential to be significant, specifically in the European Union case, but it is still underdeveloped elsewhere. While the Bretton Woods institutions have considerable power, this power is not used in a direct way. The institutions use their power to impact the socio-economic policies of national governments, which in turn impact businesses, workforces, and communities (Henderson et al., 2002).

On the other hand, the power of the UN agencies is far less significant since their influence needs to be advisory and moral, along with being indirect. Credit rating agencies have the potential to play a significant role for many lead firms in a direct way and in an indirect way through their assessments of the credit risk posed by national governments. However, little is known about their methods for exercising power (Henderson et al., 2002).

Lastly, collective agents exercise collective power in order to influence firms in specific production networks, governments, and international agencies like IMF and WTO. These agents contain a wide range of actors, from employers' associations, trade unions, and organizations that advance specific economic interests to non-governmental organizations that work on human rights and environmental issues. They can be centered on a specific region, country, or even the entire world. In most cases, such agencies make an effort to exert countervailing power indirectly on national governments or other international organizations or directly on specific firms within particular networks (Henderson et al., 2002). These agencies that generate various forms of collective power can significantly impact global production networks by putting pressure on lead firms (Hess, 2018). The majority of

the time, such agencies make an effort to exert countervailing power on national governments or other international organizations in an indirect way or specific firms or firm groups within particular networks in a direct way.

Embeddedness is the third and last conceptual category of the global production framework. Global production networks connect not only the functional and territorial aspects of firms but also the social and spatial contexts in which they are situated. These contexts influence their strategies as well as the priorities, values, and expectations of workers, managers, and communities. The specifics of the embedding and disembedding processes, as well as the methods by which various agents create and maintain their connections to one another, are to some extent influenced by the 'heritage' and origin of those agents (Henderson et al., 2002). Therefore, through embeddedness, how the global production networks are formed and reformed by the continuing economic, social, and political arrangements of the places they inhabit is explored (Coe & Yeung, 2015). Whether TNCs or smaller local enterprises, firms are shaped by the institutional frameworks, social contexts, and forms of capitalism that exists in their home countries. While the nature of education, training of the labor systems, and the sources and organization of corporate finance are important, state policy and legal framework are essential for firms' development, priorities, and strategies (Henderson et al., 2002).

The emphasis on embeddedness is a distinctive attribute of the global production network framework considering all commodity/value chain approaches center on the notions of value and power. This characteristic of the GPN mirrors the wish to stress the substantial socio-cultural and institutional settings of all economic activities. Three distinct yet interconnected types of embeddedness are employed in the GPN framework: societal, network, and territorial (Figure 2.5).

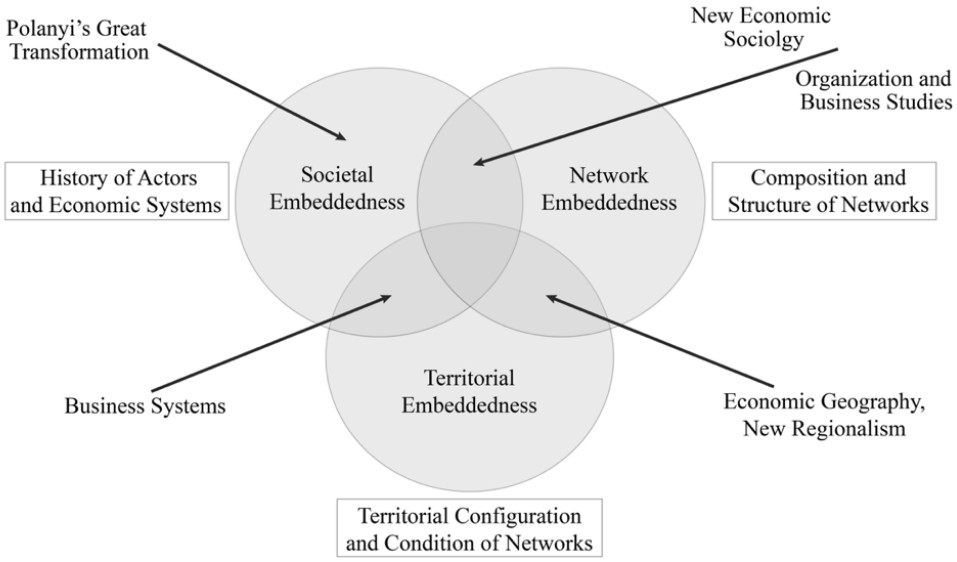


Figure 2.5. Fundamental Categories of Embeddedness (Hess, 2004)

Societal embeddedness denotes the significance of the historical, institutional, and cultural roots of the actions of the economic agents (Coe & Yeung, 2015). As a concept based on the work of Karl Polanyi, it refers that these roots of economic actions influence and shape the actions of individuals and collective actors both within and outside of their respective societies (Hess, 2004, 2018). According to the concept, when a firm invests overseas, it brings some social and cultural traits it has amassed over the course of its development in relation to its home base. These traits can contain the organization of supplier networks, attitudes towards labor-management interactions, working conditions, welfare benefits, and the proper place of host country governments in the business environment (Coe & Yeung, 2015).

Network embeddedness is a concept based on Mark Granovetter's work in economic sociology. The concept refers to the network structure, namely the degree of social and functional connections within a GPN, the stability of the agent relationships, and the significance of the network to its members. The structure, durability, and stability of connections, both formal and informal, determine the individual network embeddedness of the agents (actor-network embeddedness) and the evolution and structure of the global production network as a whole. While the individual network embeddedness of the agents refers to an individual or firm's relationship with other

actors, network embeddedness also accounts for broad institutional structures, including extra-firm agents that are frequently involved in the production of specific products or services. In network embeddedness, it is emphasized that the relationships among the heterogeneous actors make up a global production network, regardless of where they are located, and is not consequently limited to one geographic scale (Coe & Yeung, 2015; Henderson et al., 2002; Hess, 2018).

Network embeddedness results from trust-building processes between network agents. This trust-building process is essential for stable and successful relationships to be built. Even within intra-firm networks where ownership integration and control form the relationships, as in joint ventures, trust between the stakeholders and firm may be critical (Henderson et al., 2002).

Territorial embeddedness contemplates the geographical dimension of global production networks and the various degrees to which firms, non-firm organizations, and institutions are "anchored" in specific locations (Hess, 2018). GPNs can become embedded in the locations in which they are located. Through this embeddedness, local socio-economic dynamics that exist in those locations can be absorbed by GPNs. However, these dynamics can also constrain the production networks (Henderson et al., 2002). A firm's reliance on certain resources that are located in specific locations, such as state legislation and labor markets, is reflected in this anchoring. The scope and character of the connections between firms playing various roles within GPNs constitute a crucial component of territorial embeddedness. The scope and character of the connections between firms playing various roles within GPNs constitute a crucial component of territorial embeddedness. These types of embeddedness, both on their own or collectively, undoubtedly have the potential to affect the prospects for societal and economic growth in certain regions (Coe & Yeung, 2015). The global production networks of specific lead firms may benefit from clusters of small and medium enterprises that existed prior to such firms' establishment of subcontracting and subsidiary operations (Cui & Liu, 2019; Henderson et al., 2002).

Furthermore, the concentration of lead firms in particular locations may result in new local or regional socioeconomic network relations that include existing firms and new ones that will be attracted. Embeddedness then becomes a critical component for driving regional economic growth and seizing global opportunities (Cui & Liu, 2019; Henderson et al., 2002). Due to the advantages in value creation, these firms may become spatially locked in, which could impact other areas of their GPN. Similarly, national and local government policies may serve to embed specific parts of the GPN in specific cities and regions, thereby facilitating the formation process of new nodes in global networks. However, the benefits of being embedded in a specific location cannot be assumed over time. When a lead firm, for instance, cuts its ties within a region, a disembedding process occurs, potentially eroding the previous foundation for economic growth and value capture. From a development standpoint, how the value created, enhanced, and captured is heavily affected by the form of territorial embeddedness, or the degree of the commitment of a GPN firm to a specific location (Henderson et al., 2002).

In sum, these three categories, value, power, and embeddedness, serve as the analytical lenses of the framework for the research on the organizational, geographic, and development dynamics of the global production networks (Hess, 2018).

In GPN the context, the conceptual categories are ‘energized’ and ‘vibrant’ in various conceptual dimensions, which are the structures within which the value is produced, power is exercised, and other processes are given concrete effect in the form of specific policies and initiatives. There are four main dimensions that are important (Henderson et al., 2002).

Even within the same sector, firms may have different strategic objectives, attitudes toward labor relations, and relationships with suppliers of firms. Consequently, even though firms in the same industry may operate similarly, there will still be significant differences between them, particularly in the location choice of their investments and how they connect with suppliers and subcontractors. These differences may be due to the ownership structure, managerial whim, or values embodied throughout the

evolution of the firm. Whatever the cause of these differences, it is likely that they will have an impact on how their GPNs are created or how they interact with other firms' GPNs (Henderson et al. 2002).

Firms that operate in the same sector produce similar products, use similar technologies and face similar market constraints, and they create competitive advantage and GPN architectures by using similar ways. Consequently, firms in the sector tend to create GPNs that do not differ from each other. For this reason, simple statistical classifications are inadequate to define a sector. Determining criteria is required to do so. A sector consists of a variety of firms, ranging from the leading producers of the sector to suppliers of various parts, including service functions. However, its governance structure is frequently supplemented by purpose-built organizations. These sectoral differences result in sectoral regulatory environments in which government policies at various scales address specific issues. Legal regulations such as the supranational multi-fibre agreement for the textiles and clothing sector and national sector policies for promoting competitiveness and innovation exemplify this (Henderson et al., 2002).

Particular governance issues arise within the various networks. Because the way power is exercised and mobilized is likely to differ for a variety of reasons that are specific to firms and sectors, governance structures also significantly vary. Consequently, there is a good chance to be notable variance, for example, in the degree to which secondary firms in a particular network can exercise a degree of autonomy, allowing them to move into higher value-added activities with favorable conditions for economic growth. In the absence of enough research open to such variances, it is premature to move to a conceptual closure of network governance structures (Henderson et al., 2002).

In general, institutional arrangements have an impact on GPNs both locally and globally. They have the potential to play an important role in the creation, enhancement, and capture of value locally. Furthermore, they can be vital in establishing standards for labor relations, wage levels, and working conditions. In

other words, they are crucial to determining whether GPNs can foster sustained economic and social growth in the communities they serve. It is critical to recognize that the effects of institutions on GPNs, their local and global activities, and their implications can be either positive or negative (Henderson et al., 2002).

2.3 Reconceptualization of Global Production Networks: GPN 2.0

Up until this point, the conceptual framework that was mainly developed by Henderson and other researchers is explained. This framework, now namely GPN 1.0, has inspired many studies. Nevertheless, it also has its limitations regarding elucidating of the causal mechanism behind the creation and transformation of GPNs (Hess, 2018). Also, it is not efficient enough to explain the reasons and ways of the global economy for the production and reproduction of uneven regional development (Vicol et al. 2019). Taking on these critiques and considering the shortcomings of GPN 1.0, Coe & Yeung (2015) have developed a new concept, GPN 2.0, seeking to reconceptualize and theorize GPN 1.0 (Hess, 2018). Since then, the theory has grown comparatively narrower than GPN 1.0 in the sense that its development as a meso-theory of industrial organization and economic development in the global economy (H. W. Chung Yeung, 2021). The main objective of this new concept is to explain the causal dynamics between configurations of the global production networks and uneven territorial development (Coe & Yeung, 2019).

According to the theory, the latter is caused by the production network dynamics, and in this process, development is the ultimate dependent variable (McGrath, 2018, as cited in Vicol et al., 2019). Mainly, GPN 2.0 describes the component of a GPN, the motives of various actors in such a network to work together, and the organization of such works under various strategic conditions. Moreover, the framework also unravels the implications of these patterns and processes for value capture and uneven development trajectories (Yeung, 2021).

Even though the literature on the framework is relatively mature, there are still inconsistencies and difficulties concerning the definition and delimitations of GPNs. Therefore, the first vital step in the GPN 2.0 framework is defining and delimiting global production networks. More precisely, there are significant drawbacks to the propensity to categorize GPNs at the industry level. (Coe, 2020; Coe & Yeung, 2019). These drawbacks are particularly evident in empirical studies that begin with a relatively globalized industry and then proceed to analyze the local effects on industry-related locations and regions, often with no explanation and definition of the ways in which the industry dynamics and main actors constitute GPNs, and, in turn, how these network configurations shape localized territorial outcomes. Therefore, individual lead-firm-based configurations are seen as more useful in GPN 2.0 for understanding global production networks, given their display of industry traits and considerable variation between GPNs, even though these GPNs are in the same industry or product category. This variation arises from the differences in the lead firm's ownership mode, nationality, strategic disposition, and corporate culture (Coe & Yeung, 2019).

Additionally, a greater emphasis must be placed on the interaction of GPNs with their end users and markets. Several studies typically start by identifying a lead firm and then explore interfirm relationships with suppliers by moving 'backward' or 'upstream'. However, the networks of retailers, resellers, distributors, and other related actors link lead firms to their markets can be revealed by reconsidering of upstream and downstream connections. This also allows considering recycling and the 'after-lives' of goods and services after consumer use (Coe, 2020). Therefore, rather than treating network dynamics as an industry-level background context, it is important to investigate the causal relationships between the dynamics of these networks and territorial outcomes (Yeung, 2019, as cited in Coe & Yeung, 2019).

In this context, using the GPN 2.0 framework, the causal relationships between network dynamics and territorial outcomes are explored through competitive dynamics, actor strategies, value capture trajectories, and strategic coupling. Hence, these framework configurations will be investigated in this section of the thesis.

2.3.1 Competitive Dynamics

Firstly, GPN 2.0 theory develops theoretical framework of the fundamental political and economic factors that govern the ongoing creation and reorganization of GPNs. The theory put forward is helpful considering the ways that the following competitive dynamics increasingly challenge global lead firms and their suppliers: (1) optimization of the cost and capability balance; (2) sustaining market development; (3) working under the enormously disciplinary pressures of global finance (Coe, 2020).

Despite the fact that the existing literature on GCCs and GVCs has given considerable attention to rationalities of governing buyer-driven commodity chains with lower cost and the significance of technological leadership in producer-driven commodity chains, few of these studies have combined these two rationalities and integrated them into a dynamic concept like the cost-capability ratio (Coe & Yeung, 2015) Therefore; less attention is paid to how costs are always balanced against firm capabilities, as well as market growth and financialization as further drivers of GPN dynamics. Due to these three competitive issues, firms and extra-firm actors must create actionable strategies to sustain or further their competitive positions in a fiercely competitive global economy (Coe, 2018, 2020). These dynamics primarily drive the globalization of industries like apparel, electronics, and automobiles. Hence, they need to optimize cost-capability ratios by reducing costs and improving firm-specific capabilities (Coe, 2018).

Over time, lead firms may only be successful in their current markets if cost-capability ratios are optimized. Besides the cost-capability ratio optimization, the importance of market development imperative for lead firms cannot be overstated. The GPN 2.0 framework delimits the market development imperative as the obligation of the global lead firms and their partners in the network to develop new markets for their goods and services constantly, whether in developed or developing economies, to succeed (Coe, 2018). Comprehending the dynamics of the market development process necessitates paying equal analytic attention to consumers and

their behavior as well as the strategies of producers, ranging from merchandisers to distributors and manufacturers, and the essential role that intermediaries like logistics, traders, and standard enforcers play (Coe & Yeung, 2015). This market-making process draws attention to the causal role that final and intermediate uses of products and services play in determining how geographically distributed their production and distribution are. This process also gives customers and consumers more analytical weight in determining the ways economic and non-economic actors plan or participate in various GPNs (Coe, 2018).

By the 2010s, the influence of finance on global production networks had grown significantly. In this context, finance is viewed in the broad sense of financialization, which refers to the ways in which finance presents its own potent dynamics that influence the entire economy (Coe, 2021). Briefly, in combination with the other two dynamic dynamics, financialization, which is the third competitive dynamic, exerts enormous pressures on lead firms to optimize cost-capability ratios and to capture more value from new markets. Also, it incentivizes these lead firms to seek greater shareholder returns through investment, not necessarily in new plants and equipment, but in financial assets that may not be related to these firms' core products or services. Short-term financial benefits, rather than longer-term synergy in production and market development, typically overrule investment decisions by lead firms (Coe, 2020).

While combining these dynamics can facilitate understanding how and why global production networks form and change, such an analysis also needs to take into account the wide range of significant risks that come with conducting business in an unpredictably global environment (Coe & Yeung, 2019).

Consequently, risk management is considered as the fourth driver of global production network formation and evolution. In addition, the configuration and coordination of the GPNs itself offer a way to manage and mitigate those risks, for instance, by outsourcing production to tiers of suppliers and/or dispersing it over

several geographical areas to lessen exposure to localized events. Five types of risk are primarily associated with GPNs (Coe, 2021).

Table 2.2. Main Types of Risks Associated with GPNs (Coe, 2021)

Form	Nature	Potential Effects
Economic Risks	systemic shifts in markets: development of new technologies and innovations, change in demand, financial disruptions, fluctuating exchange rate	losing of competitive position in cost and/or market leadership, reducing financial returns and profitability
Product Risk	quality, safety, branding and efficiency considerations	negative views of goods and services by consumers and costumers; greater demand for corporate social responsibility
Regulatory Risk	political, public-to-private governance changing standards and norms	disruption or termination of global production, existing industrial practices and organizational arrangements
Labor Risk	struggles over working conditions and employment practices	resistance and industrial action by employees; disruptions to global production and employment prospects; and potentially greater reputational risk
Environmental Risks	disasters caused by people and natural hazards	accentuating the above four forms of risk and their impacts

As seen in Table 2.2, risks based on economy, product, regulation, labor, and environment are mainly considered in the global production networks framework. These risks all have distinct natures and potential effects. For instance, economic risks generally arise from systemic shifts occurring in markets. The development of new technologies and changes in demand are among the incidents that lead to such shifting in markets. Accordingly, exposure to economic risks causes competitive position losses and diminishing financial returns and profitability. Product risk is related to attributes such as quality, safety, efficiency, and branding. Any exposure to these may induce a negative perception of consumers and customers about the related product or services. The regulatory risk, on the other hand, has the potential to disrupt or terminate global production, current industry, and organizational arrangements. Changing standards and norms is one of the incidents that can cause exposure to this type of risk. Now and then, there can be struggles over the working conditions and employment practices in the network. As a result, the GPN may be

exposed to labor risk, which has the potential to provoke resistance and industrial action by employees and damage the reputation of the related network. Last but not least, the fourth category of risks is the environmental risk caused by disasters induced by people and natural hazards. Environmental risks are particularly important since they accentuate the other mentioned risks and their effect on the GPNs.

2.3.2 Actor Strategies

GPN 2.0 strongly emphasizes the actors' strategies to understand the various actor behaviors and network configurations. Considering strategy reveals actor intentionality and agency, lessening the possibility of merely reading off firm operations in connection to their role and location in reference to configurations of broader sectoral and industrial organizations. Actors frequently employ numerous strategies to deal with varying competitive dynamics and risk settings. It is possible to demonstrate that there are a variety of potential competitive success trajectories in global industries as well as the variety of strategic decisions and network configurations defy characterization by mapping the dynamics and risks of GPNs onto the strategic decisions made by various actors in the network (Coe, 2018).

Explicitly, the implementation of four strategies in single or combinatorial forms that lead firms follow allows for identifying firm- and industry-specific characteristics: intra-firm coordination, inter-firm control, inter-firm partnership, and extra-firm bargaining (Coe, 2018). Among these characteristics, intra-firm coordination is especially significant since the global value chains and other international outsourcing literature is inclined to concentrate mainly on inter-firm relationships. Consequently, there is not enough knowledge on the ways that firms in GPNs can reorganize their internal value activity in response to challenges that emerged in global competition (Coe & Yeung, 2015).

Intra-firm coordination is depicted as the internalization and consolidation of value activity within the lead firm, the strategic partners, and suppliers as a means to attain increased efficiencies in firm-specific systems like optimized cost control, lower inventories, improved market responsiveness, and goods and services with high quality. Accordingly, by paying more attention to intra-firm coordination, the value of a firm's present organizational capabilities or firm-specific resources can be identified and increased (Yeung & Coe, 2015). Firms contingent on strong market imperatives and high-risk levels tend to deploy intra-firm coordination. The strategy is commonly internalized through methods like domestic expansion, foreign direct investment, and specialization (Coe, 2018; G. Yeung, 2016).

Internalization occurs when a firm participates in horizontal specialization, a strategy for growing into adjacent markets and/or products or services by completely utilizing its firm-specific exclusive assets, such as branding, know-how, and technology. This internalization strategy frequently involves the articulation of a firm into multiple industries. Thus, it enables a firm to take advantage of economies of scope. On the other hand, value activity consolidation goes hand in hand with internalization since it calls for a firm to combine its various abilities and resources more explicitly to support its expansionary endeavors through internalization. Stricter internal supply and procurement procedures, the use of cross-functional competencies, and the integration of resources from affiliates in various markets and regions are all ways to achieve consolidation. Overall, the internalization and consolidation strategies that firms employ allow them to respond to competitive dynamics in ways that result in specific configurations of GPNs (Coe & Yeung, 2015).

Accordingly, the causal relationships between the risk environment and competitive dynamics and the adaption of intra-firm coordination strategies by various actors and their ramifications for the organizational structures of GPNs are summarized in Table 2.3.

Table 2.3. Intra-Firm Coordination Strategy in Organizing GPNs (Coe, 2021)

Actors	Competitive Dynamics			Risks	Global Production Network Structures
	Cost-capability ratio	Market Imperative	Financial Discipline		
Lead firm	Low	High	Low	High	Domestic expansion and/or FDI-driven internationalization
Strategic partner	Low	High	Low	High	Mergers and acquisitions of existing capacities
Independent supplier	Low	High	Moderate	High	Specialization and in-house capacity building and integration
Non-firm actors	Enhancement of value capture	Facilitation of value creation	Regulation of value destruction	Reduction	Supportive

On the other hand, inter-firm control is a more strictly controlled externalization strategy. The lead firms that apply this strategy maintain tight control over the process of production and standard of products/services even though a decent part of their value activity is outsourced to interdependent contractors and suppliers. In this context, outsourcing can apply to many production parts, from the main components or services to the systems and subsystems. In order to increase the competitiveness of the whole GPN, the lead firms that outsource their activities need to maintain high levels of control over the production process (Coe & Yeung, 2015).

The competitive dynamics, which frequently have a solid connection to cost-capability ratios, significantly impact the inter-firm control strategy despite the entry barriers. Instead, to understand a strategic decision of a firm regarding the ways that it set up its global production networks, the market imperative, financial restraint, and risk mitigation should be considered (Coe & Yeung, 2015).

Table 2.4. The Strategy of Inter-Firm Control in Organizing GPNs (Coe, 2021)

Actors	Competitive Dynamics			Risks	Global Production Network Structures
	Cost-capability ratio	Market Imperative	Financial Discipline		
Lead firm	High	Low	High	Moderate	Outsourcing to and developing domestic and international suppliers
Independent supplier	Low	High	Low	Moderate	Dependent integration into production systems
Non-firm actors	Training and industrial upgrading initiatives	Developing new markets	Provision of grants and investment incentives	Reduction through collective bargaining	Cautiously supportive

Not all inter-firm relationships in a global economy intertwined by production networks are distinguished by lead firms closely controlling their contractors and suppliers. Lead firms can also establish cooperative relationships with their strategic partners and specialized suppliers. These relationships can be formed in different sectors. Firms may also form inter-industry relationships with other firms, particularly those that provide advanced producer services such as logistics, advertising, finance, accounting, and management consulting. However, since producer service firms frequently operate across multiple industries, the degree of interdependence in these relationships is lower than it is with firms in the same industry. These cooperative relationships between firms and strategic partners, in the same industry or not, are an example of inter-firm partnerships. Inter-firm partnerships are defined as the collaboration, co-evolution, and joint development of a lead firm and its key suppliers or strategic partners within the same GPN for competing with other lead firms and their partners in the network (Coe & Yeung, 2015).

The last strategy, extra-firm bargaining, focuses on the intersection of concrete economic processes within firms with non-economic issues. The strategy is defined as a process of negotiation and accommodation between firms and non-firm actors to achieve an outcome related to creating, enhancing, and capturing value through

GPNs. Moreover, an extra-firm bargaining strategy can be used to draw inferences about the institutional foundations of strategic coupling of regional economies with GPNs (Coe & Yeung, 2015).

Market power, proprietary rights, and social and political legitimacy are three interrelated objectives that firms and non-firm actors strive to achieve through bargaining strategies. According to the first objective, market power, global lead firms with a strong focus on the market are more likely to be interested in gaining market power from extra-firm bargaining with state actors who mainly continue to be the primary regulators of unequal market access despite a globally interconnected economy. The intense negotiations and bargains between lead firms and state authorities in various national markets may reveal this market power-oriented motive. Securing this aspect of external relations can enable firms to reach market definition and establish dominance through inter-firm networks. Through more productive articulation to global production networks, state actors can also benefit from this process in various economic and social aspects (Coe & Yeung, 2015).

The second motive driving firms to pursue extra-firm bargaining is the pursuit of proprietary rights in the context of technological and commercial innovation. This bargaining procedure is prevalent in industrial segments with strict financial discipline and a significant risk of technology disruptions. Domestic firms frequently look for robust regulatory regimes and codification standards to protect their firm-specific R&D investments and intangible assets in this competitive environment. With pertinent domestic extra-firm actors, such as state authorities, standards organizations, and industrial associations, these lead firms engage in vigorous negotiations. However, if there are significant differences between these extra-firm actors' economic priorities, political ideologies, and institutional capabilities, these negotiations may not result in favorable outcomes (Coe & Yeung, 2015).

Another motive for engaging in extra-firm bargaining is the continual pursuit of social and political legitimacy in the diverse region where firms operate. This imperative is especially pressing for lead firms in consumer-oriented industries

looking to safeguard their significant products or services against reputational and economic harm (Coe, 2021).

To sum up, the firm-specific strategies and their organizational outcomes in global production networks are given in Table 2.5.

Table 2.5. Firm-Specific Strategies and Organizational Outcomes in GPNs (Coe, 2021)

Strategy as Actor Practice	Competitive Dynamics				GPNs Structure as Organizational Outcomes
	Cost-capability ratio	Market Imperative	Financial Discipline	Risks	
Intrafirm coordination	Low	High	Low	High	Domestic expansion and/or foreign direct investment and mergers and acquisition; high level of network integration
Interfirm control	High	Low	High	Medium	Outsourcing but dependent integration of suppliers
Interfirm Partnership	High	High	High	High	Outsourcing, joint development with partners and platform leaders
Extra firm bargaining	Medium	High	High	High	Differentiated integration into global production systems

2.3.3 Value Capture Trajectories and Strategic Coupling

Understanding the development and dependency outcomes for the places linked to the GPNs is particularly sought by GPN 2.0 framework. According to the framework, these territorial development outcomes are strongly shaped by the firms located within a specific territory, their roles in GPNs, and the possibility of capturing economic value through these roles. Therefore, instead of using instead of typical upgrading paths of GVC approaches, the framework uses numerous possible value capture trajectories that can arise when a firm in a specific locale connects into a GPN and how and with what effects this firm plug into the GPN (Coe & Yeung, 2019; Coe, 2021). Through this approach, the various possible outcomes of such

intersections can be considered, and the roles that a single firm may play in a broader network can be reflected (Coe & Yeung, 2019).

By using value capture trajectories, GPN 2.0 framework goes beyond the assumption that inward or outward FDI flows are the only ways for firms to connect to the global economy and suggests that this connection also takes place through being involved in the coordinated trade of intermediate goods and services. Both ways of plugging in can occur in 'inside-out' and 'outside-in' modes. Therefore, four basic types of connection can be identified.

A firm can be internationalized to regions beyond its home economy through outward FDI. Through this inside-out mode of connection, a local firm plugs into the GPNs coordinated by lead firms based elsewhere or as a lead firm itself. It incorporates other firms and non-firm actors into its production network. In contrast to this mode of outward FDI, an external firm can connect to the home region of a local firm through inward FDI. By way of this outside-in-natured connection, lead firms or suppliers based elsewhere expedite the localized development of connections into GPNs using sourcing arrangements of subsidiaries of lead firms and/or global suppliers.

Besides these FDI flows, firms can also link to the GPNs through export and import activities. By exporting intermediate goods or services to firms outside their home economy, firms can participate in GPNs coordinated by lead firms based elsewhere. Therefore, it becomes connected to GPNs by using an inside-out mode of international trade. Contrary to this, an outside-in connection can take place through importing intermediate goods and services from a local firm from foreign suppliers. Through this trading mode, foreign suppliers plug into related GPN coordinated by a local lead firm. This categorization of these basic types of connection to the GPNs does not necessarily mean that an individual firm needs to stick with one for plugging into GPNs. Firms may use different ways at the same time for such connections. For instance, it can connect through backward and forward integration of intermediate trade flows (Coe, 2021).

In the global production approach, value capture is seen as vital for development. Value capture depicts a firm's capability to retain surplus value within their organization boundaries in the context of the broader power dynamics within a GPN. Value capture trajectories can be used to determine a firm's value capture position. Similar to firms using different ways to plug into the GPNs, firms can also follow various value capture trajectories (Coe, 2021). The value capture trajectories can be framed by using four different scenarios.

Accordingly, firms can be on relatively fixed trajectories. This means that the amount of value that firms capture can grow or decline steadily or rapidly. It can also be static. However, in terms of value capturing, firms are not always in fixed trajectories. They can also be on multi-directional trajectories, in which rapid initial gains in value capture may peak and then wane or decline bottoms out and turn into growth related to the changes in competitive conditions. Both fixed and multi-directional trajectories are relatively static on which firms keep coupled to the GPNs.

On the other hand, the remaining two trajectories exhibit the dynamic aspect of strategic coupling. Accordingly, firms can 'decouple' from the GPN due to declining value capture. This decoupling process can be occurred as a decision of the firm itself or by the other network actors that choose to end the relationship with the firm. Firms that decouple from GPNs can 'recouple' with the same GPN again. Lastly, firms can be on a value capture trajectory that they decouple from a specific GPN as a result of declining value capture and recouple with another one that is in the same industry but potentially in a different one considering the enhanced value capture trajectories that the GPN offers (Coe, 2021).

Figure 2.6. Theoretical Schema of GPN 2.0. (Coe & Yeung, 2015)

The value capture trajectories offer different amounts of value to the firms. The value capture is considerably related to the abilities of the firms. The value capture ability

of firms depends on several influences, namely firm-level capabilities, GPN-level influences, industry specificities, and territorial outcomes.

The aggregate value capture trajectories at the firm-level can be conceived of as substantially shaping regional economic development. In turn, the concept of strategic coupling can be further developed to define the various ways in which regional economies interact with GPNs (Coe, 2020). There are different modes and types of strategic couplings. Through these modes and types, strategic coupling depicts the way certain types of value capture trajectories and couplings typically come to dominate at the regional level. For individual firms, it is possible to exhibit different types of couplings. However, the overlapping of different modes of coupling is not a common occurrence (Coe & Yeung, 2019).

For the characterization of regional development trajectories, there is usually a dominant strategic kind of strategic coupling. Therefore, the different modes of strategic coupling that may prevail in different contexts can be distinguished. In this case, distinguishing the three basic modes of strategic coupling underpinned by differential power relations between regional and global production network actors is helpful (Coe, 2021).

Strategic coupling has three modes, which are organic, functional, and structural. The first mode of strategic coupling, organic coupling, is inside-out in nature and mainly occurs when the regional actors reach outside their home region to build GPNs. Through this process, these regional actors obtain considerable autonomy and value capture. Functional coupling, the second mode of strategic coupling, emerges when regional actors productively meet the broader needs of GPN. The emergence of this coupling mode can occur in either an inside-out or outside-in manner and presents a certain degree of autonomy and value capture to the economy of the related region. Lastly, the third mode of coupling, outside-in nature, is structural coupling. This coupling occurs when the external actors connect the region to GPN. In contrast with the other two modes of coupling, the structural coupling is

characterized by dependency from the perspective of regional actors and low levels of value capture (Coe, 2021).

These three modes underpin economic development based on their diverse capacities for value capture, distinct configurations of control and dependency, and different susceptibilities to decoupling. However, two aspects of these processes must be emphasized. Strategic coupling is not a static process by no means and must always be framed in dynamic terms. Also, the coupling process does not always result in positive economic developmental outcomes. In fact, the process can drive adverse economic developmental outcomes (Coe, 2018).

In this context, in the last section of the chapter, GPN configurations are explored in terms of their regional development outcomes.

2.4 Global Production Networks and Regional Development

Both GPN approaches, GPN 1.0 and GPN 2.0, emphasize that the participation of local firms in GPNs is a significant determinant of regional development. However, they do not necessarily share the same views on regional development. Considering GPN 2.0 framework is mainly built on the initial framework of global production networks, the regional development approach of the GPN 1.0 will be explored at the beginning of this section.

First, GPN 1.0 framework sees endogenous factors of a firm as necessary components of regional development but also finds them insufficient in line with the criticisms of new regionalism literature. According to the framework, economies of scale and scope resulting from technology, organization, and territory are unquestionably required for regional development. Concentrations of specialized knowledge, competencies, and proficiency that are highly localized can be used in some regions to achieve economies of scale. Also, on the occasions that these regions are able to reap the intangible benefits of learning and the cooperative environments ingrained in these agglomerations, economies of scope might occur. In this context,

these essential prerequisites for regional development are called 'regional assets' (Coe et al., 2004). These regional assets include the scale and composition of human capital, endowments of natural resources, and educational and research facilities (Hess, 2018).

However, the presence of these assets also does not always imply that they will be utilized for regional development. Economies of scale and scope anchored in particular regions only benefit them if they can supplement the strategic demands of trans-local actors within GPNs (Coe et al., 2004). Therefore, the strategic coupling process between regional assets and GPNs is vital for achieving value creation, capture, and enhancement (Nilsen, 2019).

The strategic coupling process does not occur per se. It is significantly mediated by institutional structures, which concurrently promote regional advantages and enable the articulation of the region into GPNs (D. Y.-R. Yang & Coe, 2009). The agency of these regional institutions is primarily focused on ensuring that strategic coupling takes place by influencing and molding regional assets to meet the demands of the lead firms within the production networks (Dawley et al., 2019; Nilsen, 2019; C. Yang, 2013). Also, regional institutions are not necessarily limited to regional-specific institutions. Local branches of national and supranational organizations and extra-local institutions can also be considered as such. The decisive criterion, in this case, is not the presence of institutions in the region but rather their ability to affect the activities within. These multi-scalar regional institutions are particularly crucial since they tie down GPNs in particular localities (Coe & Yeung, 2015).

The notion of regional institutions has three critical dimensions that are vital for regional development. The first dimension entails value creation through the efforts of the institutions to draw value-added activities to their locations. These value-added activities involve enhancing human capital by educating and training the local workforce, advancing start-up businesses and a network of suppliers, paving the way for venture capital formation, and promoting entrepreneurs' activities. The effectiveness of this relational coupling between the focal firm and the related region depends

on the region's value enhancement and capture ability, even though the involvement of tying the region excessively to the value activities of global production networks and specific focal firms in the process is frequently inexplicit. The issue of regional development, however, remains moot without the process of coupling, considering no processes of value creation, enhancement, and capture take place (Coe et al., 2004).

The second and third dimensions of regional institutions in global production networks refer to their capacity for value enhancement and capture. Value enhancement mainly consists of industrial upgrading and technology and knowledge transfer. Regional institutions significantly influence this process through their support for particular regional assets that are advantageous for high value-added production activities since they have high fixed investment costs and are challenging to relocate in a short period of time. This situation indicates an interaction between regional assets and regional institutions that mutually benefits both parties. Alongside this, regional institutions also have the ability to support the focal firm activities for value enhancement in GPNs when they are willing to make the financial commitments necessary to develop value enhancement requirements such as infrastructure and human resources. In cases when focal firms are convinced to bring in their core technology and skills, additional value-adding activities within global production networks may eventually take place within these regions. It is crucial to develop sophisticated local supplier networks to increase the value activities of these firms through a reverse transfer of local experience and knowledge (Coe et al., 2004).

The ability of regional institutions to value capturing is the third dimension of their role in fostering regional development. This dimension differs significantly from the value creation and enhancement in benefitting the region. In order to understand the distributional elements of regional development and value capture, power and control issues must be taken into account. In this context, power is acknowledged as a relational effect of social interaction rather than an ability or repertory of the resources held by actors (Coe et al., 2004).

Before proceeding with exploring relations between GPNs and regional development, it is essential to refer to the distinctions between the GPN 1.0 and GPN 2.0 frameworks on the subject. First and foremost, GPN 2.0 framework acknowledges the possibility of yielding adverse economic outcomes along with positive ones through strategic coupling. However, GPN 1.0 framework depicts strategic coupling as a process that yields inevitably positive output once the coupling takes place between firms and GPNs (Xu et al., 2020).

In GPN 2.0 framework, the strategic coupling process is characterized based on its three main attributes. Firstly, the coupling is conceived as strategic since it requires the deliberate and proactive intervention of regional institutions and global production network actors (Coe & Yeung, 2015; Dawley et al., 2019). However, the strategic coupling process may not always lead to a successful outcome. The development paths and prospects of regions are significantly influenced by the ways in which communities integrate into GPNs and the ways in which territories strategically partner with global buyers and lead companies. Also, regional development is a process of evolution broken up into coupling, decoupling, and recoupling phases (Coe & Hess, 2013; Vicol et al., 2019). Secondly, the strategic coupling process is time-space contingent since it is a temporary coalition of local and non-local actors and is subject to change (Coe & Yeung, 2015). Lastly, it connects sub-national, national, and international scales by interacting with 'vertical' governance structures and 'horizontal' firm networks. As actors from various spatial sites come together and their practices spread out to various geographic scales, the convergence process crosses territorial boundaries and geographic scales. Consequently, actors connected to other spatial scales make many crucial strategic choices determining the type of coupling within a given region. Predominantly, the strategic coupling process describes the dynamic relational processes and mechanisms that enable key regional actors to be articulated into the demands of lead firms in GPNs (Dawley et al., 2019; Yeung, 2009).

Moreover, it is important to note that the strategic coupling of local actors with lead firms in GPNs should not be interpreted as a functionalist argument since the process

is not automatic and does not always result in success. Due to its changing nature with time and in various geographical contexts, the process must be unpacked and examined. Furthermore, there may be significant geographic disparities in access to the technologies and mechanisms that enable coupling. In evolutionary terms, it can be said that regional development is shaped by strategic coupling periods that are followed by periods of decoupling and then recoupling (Coe & Yeung, 2015).

Along with transforming regional assets with the aim of strategic coupling, regional institutions also interrelate with the lead firms in GPNs through bargaining and cooperation processes. These processes are crucial for regional development since they impact industrial and social upgrading, growth trajectories, and value capture.

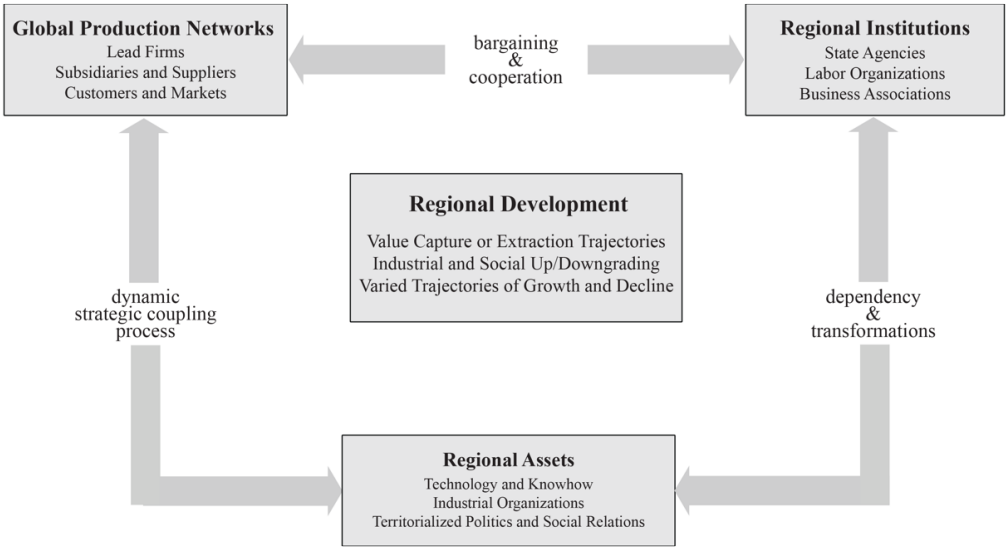


Figure 2.7. Framework of Regional Development in GPN Approach (Coe, 2021)

As mentioned before, plugging into GPNs does not always result in favorable circumstances for regional development. Particularly regional institutions are critical for development through these networks as well as participation in GPNs (Scholvin, 2020); they, under certain circumstances, have the ability to use regional assets in bargaining with the lead firms in a way that prevents power relations from being entirely in favor of lead firms. Also, their bargaining positions are powerful when these assets are highly in line with the strategic needs of lead firms in GPNs (Coe & Yeung, 2015).

In support of these claims, the GPN approach uses a combination of the horizontal perspective of new regionalism and the vertical perspective of global value chains (Machacek & Fold, 2014 as cited in Scholvin et al., 2019). Components of the approach refer to the latter that emphasize the internal relationships and structures existing in regions (Kelly, 2013). Using a network heuristic, the GPN approach investigates all actors surrounding the narrower vertical chain and the vertical chain participants. Therefore, it can be said that the approach takes a broader view of structures and actors that influence the global production landscape and, as a result, takes into account the various regional development trajectories (Scholvin, 2020).

On the other hand, the GPN 2.0 framework exhibits many differences from GPN 1.0 framework. It sees the substitution of low-level coupling with high-level strategic coupling as the only way for regional development. According to GPN 2.0, regional development is the economic development process that takes place on the territoriality of GPN, which emerges as a result of geographical and organizational relationships between GPNs that unfold mainly along two dimensions, that are vertical and horizontal. The vertical dimension represents the organizational dimension of GPNs and serves as the global-local connection. On the other hand, the horizontal dimension is the geographical dimension, which defines the touch-down of the global-local connection. The horizontal dimension is also known as territorial embeddedness (Xu et al., 2020).

According to GPN 2.0 framework, the strategic coupling process of GPNs and regional development emerge as the result of the cross-influence of the horizontal and vertical driving forces, which means that along with network relations, spatial relations also need to be taken into consideration in analyzing the regional economic development. Also, the value capture trajectories of lead firms constitute the objects of analysis instead of the interactive relations of the actors involved at different geographical scales (Xu et al., 2020).

Lead firms are depicted by their market share percentage size in a specific production network. As mentioned in the previous sections, lead firms make different strategic

decisions based on the different dynamic competitive environments that they are in. Among such decisions, firm-level value capture trajectories directly influence the spatial output of regional economic development (Xu et al., 2020). This relational process is depicted in Figure 2.8.

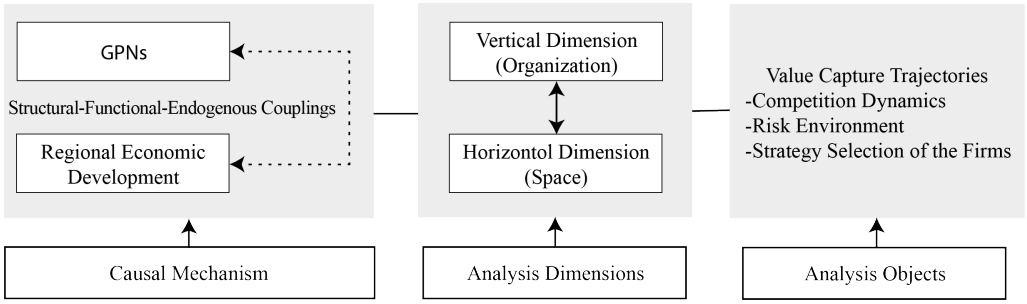


Figure 2.8. GPN 2.0 Analysis Framework (Xu et al., 2020)

The global production networks, through strategic coupling, impact regional development through four aspects: (1) Organizational ecology, (2) knowledge and technology transfer, (3) capital dynamics, and (4) employment effects.

Organizational ecology can be defined as a mix of firms and parts of firms linked by geographically extensive production circuits and networks. The creation of organizational ecology is strongly related to the associated region and the GPNs to which the region is connected (Dicken, 2015, as cited in Coe, 2021). Through these connections that provide access to large extra-regional markets, firm growth and new firm formation can be stimulated among the firm base of the region (Coe & Yeung, 2015). On the flip side, the competitive dynamics brought by the connections to GPNs may exclude some local firms and consequently lead to displacements (Coe, 2021). Additionally, not all firms have to be connected to several GPNs. Some firms can be connected to or locked into solely one GPN. Others, on the other hand, can cross with a range of GPNs in a specific industry (Coe & Yeung, 2015).

To illustrate, while a peripheral region that attracts investment from foreign and national firms in an automobile assembly plant is likely to connect only one GPN, an agricultural region that provides horticultural products for various externally controlled retailers in different countries connects multiple GPNs through this

activity. Most regions, however, are likely to connect to several GPNs across various industries. The way local and external regional firms plug into GPNs, may have inter-global production networks and inter-industry similarities. Firms may serve similar functions and value capture trajectories, making the task of bridging between the firm and regional-level development outcomes relatively simple. For instance, domestic firms and the subsidiaries of foreign firms operating in export processing zones may be meeting the demands of GPNs for labor-intensive production across numerous industries. There may be incredibly diverse patterns in other contexts, both within and between industries. From a regional standpoint, positive value capture trajectories in some networks and industries may be offset by deteriorating positions in other networks and industries. Additionally, this will lead to various horizontal territorial patterns on the ground (Coe & Yeung, 2015; Coe, 2021).

Participation in the GPN also has effects on knowledge and technology transfer. There may be conflicting implications in this situation between the possibility of indigenous knowledge and capacity being leached out to the region due to network relations and their consequent effects on value capture trajectories and access to new technologies and more sophisticated knowledge, which may be beneficial for the region (Coe & Yeung, 2015).

Also, it is necessary to assess how plugging in will affect employment. Although there may be concerns about the quality of the jobs created, in some instances, production for global markets will have a significant and demonstrable positive impact on employment creation. In contrast, in other instances, the displacement effects on local businesses and the intensification of production may cancel out these gains or even lead to net job losses (Coe & Yeung, 2015).

In terms of capital flows, GPNs may bring capital inflows in the form of inward direct investment, portfolio investment, or sales earnings for local firms from exported goods and services. The repatriation of profits by multinational corporations, the reallocation of profit centers by national firms, the use of internal financial mechanisms, and the value capture trajectories employed by influential extra-

regional GPN actors can lead capital to leak from the region at the same time (Coe & Yeung, 2015).

In the end, the empirical question of how each of these four aspects is generally balanced is relied on the regional economy in question and contributing GPNs and industries concerned. Contrary to simplistic upgrading accounts, these balances should be seen in dynamic terms because they will change over time. Additionally, the results in terms of economic development may not always be favorable on all fronts (Coe & Yeung, 2015).

The balance of these four dimensions depends on the economy of the related region, the constituent GPNs, and the industries involved. This balance is considered dynamic since they tend to fluctuate over time. Moreover, contrary to simplistic upgrading accounts, the economic development outcomes may not necessarily be positive (Coe & Yeung, 2015).

2.5 Summary of the Chapter

In this chapter, global production networks framework, which constitutes the theoretical framework of the thesis, is discussed in detail from its emergence to its perspective on regional development. The framework is among the global value and production networks theories which aims to comprehend global industry organization and its effects on development. While the concept is rooted in division of labor, chain, and network theories, it is theoretically grounded in network theories such as embeddedness and actor-network theory. In the global production research, two different approaches have been developed, and the University of Manchester approach, represented by Jeffrey Henderson, is used in the thesis. The approach, that follows global commodity chain concept, concentrates on the product and service productions and reproduction of factors such as knowledge, capital and labor. Most importantly, the concept argues the integration of spatial perspective into the global production networks.

Furthermore, the framework is reconceptualized by Coe and Yeung in 2015, due to its limitations on explaining the causal mechanisms behind the creation and transformation of global production networks along with its limited capacity on grasping the production and reproduction of uneven regional development. Accordingly, this new concept, GPN 2.0, mainly aims to describe the causal dynamics between GPNs and uneven territorial development.

The framework mainly describes the motives of actors for working together in such a network, and the organization of their work under varied strategic conditions. These strategic conditions are conceptualized as competitive dynamics in the framework and categorized as cost/capability ratio, market imperatives, and financial discipline in addition to the various risk settings. In this environment that is created by competitive dynamics and risks, the numerous strategies are employed by actors. Additionally, several possible value capture trajectories that results when a firm in a specific location connects into a GPN. Through these trajectories the framework goes beyond the assumption that the only ways to connect GPNs is through inward or outward FDI flows, and the connection can also take place by being involved with the coordinated trade of intermediate goods and services. The aggregation of these trajectories shapes regional economic development based on the framework. Also, there are various modes and types of strategic coupling which depicts the way certain types of value capture trajectories and couplings typically come to dominated at the regional level.

Lastly, global production networks influence regional development through strategic coupling in four aspects: organizational ecology, knowledge and technology transfer, capital dynamics and employment effects. The organization ecology is the mix of firms and firm parts connected by geographically extensive production circuits and networks. The creation of the organization ecology is mainly related to associated region and the GPNs that the region is connected. In knowledge and technology transfer aspect, regions can access to new technologies and sophisticated knowledge while there is also possibility of indigenous knowledge and capacity being leached out from the region. Also, the connection into the GPNs can provide employment to

the related region. However, it can also cause displacement effects on businesses. Lastly, GPNs may bring capital flows in several forms into the region. The balance of these four dimensions is determined by the associated region's economy, the constituent GPNs, and the industries involved. The regional development outcomes occur based on this balance; however, the results may not always be favorable and positive for the related region.

CHAPTER 3

GLOBAL TEA INDUSTRY

Tea is a well-liked beverage consumed by millions of people throughout the world. It is made by soaking dried Camellia Sinensis leaves in boiling water. It is the world's most popular and least expensive beverage, coming in second only to water (Mamun, 2019; Saberi, 2010). It is popular among people of all ages and social classes, and daily tea consumption worldwide surpasses three billion cups (Mamun, 2019).

In some cases, it can even provide a significant source of income and employment for millions of low-income households. Global tea output exceeds $17 billion per year, while the global tea trade is estimated to be worth $9.5 billion, representing a significant source of export revenue. Smallholders produce 60% of the world's tea, which is an essential aspect of the beverage. Tea production, in particular, enables rural people to meet their food security needs and improve their nutritional status by creating profitable jobs (FAO, 2022).

In this chapter, the global development of tea production, a significant source of income in the Eastern Black Sea Region of Turkey, will be examined from its discovery to the present day. Following this section, the global economic condition of tea will be revealed in terms of production, consumption, trade, and price, and its share of the global economy will be examined. In the next section of the chapter, three different tea producing countries is explored in order to consider various strategies that are developed by these countries that are differ from each other in terms of the tea quality, end markets, and sector structure. Lastly, the key points of this chapter and how it contribute to the objective of the thesis are explained.

3.1 Development of the Global Tea Industry

Before revealing the current status of a product that is the subject of global production and consumption activities, it is important to address the issue of the emergence of this product, its spread to the world and what role it plays for which segments under the influence of which dynamics. In this direction, an examination of the history of tea has been made in this section.

First and foremost, the history of tea is so obscured by extensive and diverse myths and legends that range from Chinese Emperors to Portuguese queens that it is challenging to decipher the truth from the rich fabric of folklore (Charrington-Hollins, 2020). However, it is evident that it is unarguably one of the beverages with the most extended history in the world; it was popular long before the advent of Christianity and has a rich history even in Chinese mythology (Mamun, 2019). It is widely assumed that the obscure discovery of tea coincided with prehistoric times, and one of the most popular myths about the incident is provided by the oral tradition of China (Hall, 2000).

Accordingly, tea was discovered by the Chinese Emperor Shen Nung in 2737 BC (Chen & Chen, 2012; Mamun, 2019) as a result of a purely accidental event. However, it was not wholly a coincidence that the Emperor made the discovery. It is said that Emperor Shen Nung was known as 'the father of medicine and agriculture' and even the author of a medical book. He held the opinion that drinking water should be boiled first for hygienic purposes, and at one of the times he was boiling his water, a leaf from a tea tree got into his pot. Later, the boiling water took on a fragrant flavor when combined with the leaf. Allegedly, this is the way that tea was discovered and came into existence as an elixir and a medicine (Hall, 2000).

Before it became popular as a social beverage, tea was consumed for its purported medical benefits and used as a medicine (Hall, 2000; Mamun, 2019; Sartor, 2007). Particularly during the Tang Dynasty (618-907), it was often combined with certain vegetables and spices by the Chinese for using it as a medicinal beverage. Due to its

price, tea was out of reach for most people at the time. It was primarily used as a present to the Emperor (Sartor, 2007). Also, it is highly probable that the people of Thailand, and the neighboring Shan states of Myanmar, which are next to the Chinese province of Yunnan, have been making tea as a therapeutic and social beverage for as long as Chinese people have (Hall, 2000).

Over time, the popularity of tea expanded along with its production. Tea had crossed the borders of China from which it originated and spread throughout Southeast Asia. In the 8th century, under the influence of Buddhism's flourishment, monks studying the religion in China brought tea to Japan. The monks utilized tea, which was already a well-liked beverage in China, as a stimulant to keep them awake during their lengthy meditation sessions at the time. There are grounds to assume that this was when Japan's interest in tea was initially sparked because history states that the monks Saisho were the first to bring the custom back to Japan. However, Japan could not be said to have a tea culture until the end of the 12th century due to its tense relations with China (Ono, 2021). Except in Buddhist temples, which continued to be a component of religious rituals that monks use, tea was mostly forgotten for over three hundred years (Saberi, 2010).

With the restoration of stability and peace through the restored ties between China and Japan in the 12th century, tea production started once again, and tea consumption began to rise among the Japanese. Additionally, trade relations with China were also flourishing. A priest by the name of Eisai Myo-an, a Buddhist monk, who had been pursuing his studies at the illustrious Zen monasteries in China, had greatly influenced the process. During his studies, he mostly centers on spiritual concerns and matters of taste, specifically tea (Martin, 2007; Saberi, 2010). After returning from China with fresh tea seeds in 1191, he significantly contributed to the widespread promotion of tea in Japan (Hall, 2000).

During the first half of the 15th century, China built up a potent naval force ever gathered in the world, and its size remained unsurpassed until modern times. The ships from the force traveled to what is now Vietnam, Java, Sumatra, Sri Lanka, and

the east coast of Africa. In all these places that were visited by the Chinese ships, tea turned out to be a prominent trading commodity. However, towards the middle of the century, Chinese shipbuilding and exploration abruptly stopped for no particular reason. It is conceived that economic factors may have contributed to this transformation. Additionally, the new country's rulers may also have triggered the change (L. C. Martin, 2007).

The Ming Dynasty (1368-1644) came under siege in the 15th century by the Mongols and the Japanese. Rather than engaging in combat, Chinese leaders chose to remain insular in the face of this assault. Therefore, they implemented a ‘strength through isolation’ program to retreat from the world and halted global trade and exploration by the end of the 1430s. This strategy resulted in a compelling and intricate central government that offered stability to its people. However, the rigidity of the new government could not withstand the changing dynamics that would ultimately cause the ancient Chinese civilization to crumble. The primary cause of this damage to Chinese civilization during its isolation was the winds of change blowing in the West. While the Ming rulers were isolating themselves, Western rulers witnessed significant changes in the period of upheaval that led to the explosive revolutions of the Renaissance and Reformation in Europe. The national states were expanding, and there was a growing interest in discovering new trade opportunities worldwide (Martin, 2007; Martin & Cooper, 2011).

Consequently, China significantly lagged behind the West regarding warfare, technological advancements, material culture, and economic and political structure. When new advancements enthralled Europe in these fields, the contradiction between East and West caused China to rely on tradition and isolation. Therefore, these circumstances prepared the ground for Western dominance over and expansion into China, which was mentally or physically incapable of responding on an equal basis (L. C. Martin, 2007; L. C. Martin & Cooper, 2011).

However, China also witnessed the evolution of several tea processing methods in the Ming Dynasty. Green tea was converted into whole distinct beverages by hand-

parching it in enormous cauldrons at various temperatures and for varying lengths of time. Thus, oolong and black tea varieties appeared in addition to green tea. Also, scented flowered teas gained popularity among people of all socioeconomic backgrounds. It became common to brew whole tea leaves instead of crushing and powdering them (Sartor, 2007).

While these events took place in China, Portugal established ships and fleets and built marine trade channels as the 16th century progressed. Since Portugal had superior naval forces then, it had a monopoly on these trade channels. In 1542, The Portuguese began to establish trade relations with Japan. Eventually, after years of lobbying, they were permitted by the Chinese government in 1557 to establish trading posts, also known as "factories," on the rocky point of Macao, where it juts into the Pearl River as it reaches the China Sea (L. C. Martin, 2007).

Following permission from China, Portuguese Jesuit Father Jasper de Cruz went to China as a missionary on the first commercial trading trip in 1560, making him the first European to sample tea. Consequently, trade between Europe and the East, which was limited to overland routes prior to the journey of Vasco da Gama, was initially established by Portugal with its trade with Asian nations, and tea spread over the rest of the world as a result of the trip of Father de Cruz to China (Dubrin, 2010; Martin, 2007; Martin & Cooper, 2011). After Portugal, other European nations also began trading with Asia. Upon hearing about the beverage in 1598, the curiosity of Queen Elizabeth I was sufficiently piqued that she made an effort to obtain some. Moreover, for the exclusive purpose of fostering trade with Asia, Queen Elizabeth issued a charter to the John Company (later known as the British East India Company) in 1600 (Hall, 2000; L. C. Martin & Cooper, 2011). The East India Company developed from a collection of traders with joint stock options and a royal warrant for trade to a robust international force with troops at its command, one of the best navies of the era, administrative control over whole nations, and the capacity to manufacture its own money. All things considered, the "John Company" behaved like a separate nation or state, much like Venice did in its day. The East India Company was in charge of all trade from England to "The Indies" (Bond, 2011).

However, despite these early attempts by the Portuguese and British, the Dutch made the European tea trade a lucrative industry (Dubrin, 2010). Dutch traders imported green tea from China in 1610 and marketed it as an exotic medicinal beverage. Only the wealthy could afford to buy it at over $100 per pound during that time (Sartor, 2007). While Chinese tea was being shipped to Holland as early as 1610, it was also being shipped to the American Dutch colony, New Amsterdam, around the middle of the 17th century (Dubrin, 2010). As an equivalent of the 'John Company' and a formidable opponent, The Dutch East India Company, founded in 1602 and granted a 21-year trading monopoly with Asia (Ferguson, 2004 as cited in Bond, 2011), made possible planting and importing tea from Indonesia. In order to export tea from China and Japan to Holland, the Dutch East India Company used The Netherlands East Indies as a staging area from 1610 (Hall, 2000; Han, 2007).

It is evident that compared to the introduction of tea in Japan, it took longer for tea to be introduced in Europe, and it was not until the middle of the 17th century that tea became popular in the area (Z.-M. Chen & Chen, 2012). So, before this, when tea became a worldwide commodity, its plant had been grown and consumed for more than a thousand years in East Asia (Liu, 2020), and remained an upscale beverage in its first years in Europe. It was first introduced to London in 1657 and was initially only available in apothecaries as a medicinal herb. However, tea's delicate and sweet flavor was brought out by a new Chinese processing technique that involved drying the leaves before steeping them in hot water. After the discovery of this technique, the British and others got used to the taste of tea (Martin & Cooper, 2011; Nierstraz, 2015). Also, in 1662, Charles II married the tea-loving Catherine Braganza of Portugal. Following this marriage, tea became so popular that alcohol consumption in England significantly decreased (Sartor, 2007).

While tea was introduced to English colonists in 1670 by Governor Peter Stuyvesant, that brought tea to the country, it was already available in English grocery stores by 1675. By the late 17th century, large amounts of both black and green tea were being shipped to England from China. The establishment of direct trade in 1713 between Europe and Canton – the sole Chinese port from which tea was exported to European

East India firms – has historically been regarded as a watershed moment in this evolution. A century after its introduction in Europe, tea became a common beverage affordable to all social classes, at least in many parts of Western Europe. While these events were taking place in Europe, tea quickly gained popularity in New Amsterdam. By 1720, Americans were learning about herbal teas from Native Americans. However, due to the high prices and taxes on British tea, they smuggled Chinese tea into the colonies as illegal contraband. Meanwhile, the first teahouse in London was established by Thomas Twining in 1734, and soon many more followed. By the end of the century, tea had assimilated into British culture. Workers and laborers were estimated to spend about 10% of their wages on tea and sugar (L. C. Martin & Cooper, 2011; Nierstraz, 2015; Sartor, 2007).

Besides Europe and English colonies, tea spread to other parts of the world. In 1735, Empress Catherine of Russia authorized commerce in tea. More than 300 camels trekked over a thousand miles for her first delivery over sixteen months. The Russians swiftly adopted the Tibetan "hot pot" to boil their tea; today, it is knowns as the Russian samovar. By 1900, the first Trans-Siberian trains had been built, making tea more affordable and widely available. Ordinary Russians soon developed the habit of sipping tea with a lemon slice and a piece of sugar wedged between their teeth. Today, tea, along with vodka, is a national drink of Russia (Sartor, 2007).

Before the 20th century, large-scale commercial plantations were established in India, Indonesia, and Sri Lanka to meet the growing tea demand in western nations (Mamun, 2019). When implementing practices of Chinese tea production, farm workers from China were hired (Han, 2007). The "John Company," which was founded by Elizabeth I, and the Dutch East India Company united in 1773 to form the most potent monopoly the world had ever seen (Sartor, 2007).

However, over time, England had become unable to pay for tea with gold and silver. The danger of the country's bankruptcy emerged if such vast sums had been taken out of it. Thus, England declared that it was ready to go to war for free commerce or the right to sell cheap opium to the Chinese in exchange for tea, which marked the

beginning of the Opium Wars. From 1842 through 1908, the English possessed military strength to compel the Chinese to consume their opium while attempting to maintain their dominance of the global tea market. Nevertheless, the British ran into issues when they tried to intimidate China and intrude on the New World tea trade by regulating and taxing it. In 1773, a group of American colonists hijacked a Dutch East India Company ship and threw the entire cargo of tea into the port in protest of Great Britain's tariff on tea. Through this event, Boston Tea Party eventually led to the beginning of the country's independence from Britain. Consequently, even today, tea is not subject to import taxes in the United States (Sartor, 2007).

In addition, by initially trading in Chinese tea in 1800, three Americans became the first millionaires on the continent. Also, they contributed to the end of the tea monopoly in Britain. Following the American Revolution of 1789, T.H. Perkins of Boston, Stephen Girard of Philadelphia, and John Jacob Astor of New York started direct trade with China. The American fleet's quicker, more modern clipper ships easily outsailed the English Fleet. To their great credit, these men chose to pay for their tea with gold rather than opium (Sartor, 2007). In 1833, when commerce was opened to all, the East India Company lost its monopoly on all trade with the Indies, which had the apparent effects of increasing competition and lowering prices (Bond, 2011).

In 1843, Robert Fortune, a Scottish botanist and intrepid traveler who spoke Chinese, sneaked into China and brought some tea seeds. The Indian subcontinent experienced a rapid expansion of tea plantations through English assistance. As tea cultivation became an art in India by the late 1880s, many fortunes were made and lost. Meanwhile, the Great American Tea Company, which later changed its name to the Great Atlantic and Pacific Tea Company in 1870, was established in 1859 in New York. The company continued to operate as an A&P supermarket chain until 2015 (Britannica, 2019; Sartor, 2007).

Throughout the 19th century, English, Germans, and Sri Lankans established plantations for tea in India, Sri Lanka, and Burma. Concerning tea, China had finally ceded

its hegemony (Sartor, 2007). With the establishment of these tea plantations in Eastern Africa, tea cultivation began in Malawi, Kenya, Tanzania, and Uganda in 1880, 1903, 1904, and 1909, sequentially. Kenya is now one of the largest producers of tea worldwide. In 1867, the crop was brought from India to Sri Lanka. In 1890, the French discovered local Vietnamese tea being consumed and started commercially cultivating the crop. Brazilians imported Chinese tea into the New World in 1812. However, fresh seeds from India and Sri Lanka were introduced at the beginning of the 20th century. Furthermore, the seed imported from Russia in 1920 served as the foundation for Argentina's current global output ranking (Mamun, 2019).

As a result of all these developments, which are mostly briefly mentioned, today tea has become a beverage that has customers from all over the world. Thus, a brief overview of the discovery of tea and its expansion around the world is provided in this section. The information given here is crucial since it contains hints about the current relationship networks in which tea is involved today. Accordingly, in the following sections of the chapter, the development of tea in the last few years will be examined in this respect, and current trends in the tea sector will be determined.

3.2 Current Trends in Tea Sector

Tea has grown in popularity in recent years all over the world. While it originated in China, the plant's production spread to different geographies worldwide. Figure 3.1 illustrates the distribution of the average tea production between 1980 and 2020 by supranational regions. According to the figure, approximately 85% of tea is produced in Asia, where it was allegedly first founded. Africa follows Asia with 12.5%, and America follows Africa with 2.9%. Apart from these regions, production is also carried out in Oceania and Europe, albeit in minimal quantities. As can be seen in the figure, these two regions have produced an average of 1.3% of tea since 1980.

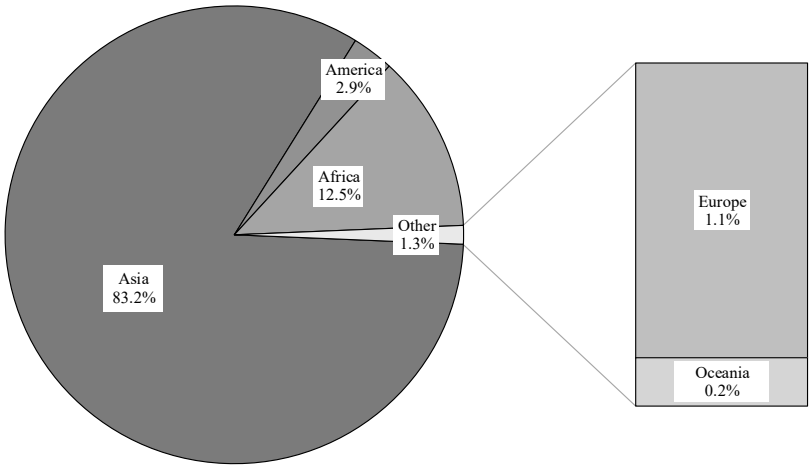


Figure 3.1. Production Share of Tea by Region, 1980-2020 (FAOSTAT, 2022)

The underlying reason for such distribution is that the tea crop needs certain agro-climate conditions which solely available in tropical and sub-tropical regions for its cultivation. Accordingly, the plant needs hot and moist climates with temperatures ranging 10-30°C, minimum annual precipitation of 1250 mm, preferably acidic soils, ideally 0.5-10 degree slopes and elevations up to 2000 meters. However, the plant can also be grown in areas that do not have these exact requirements. The most important factor in these cases is the tolerance of the plant along with the climate. For instance, some varieties of the tea plant can tolerate to the marine climates of Washington area of US and British mainland (Chang, 2015).

Depending on these production requirements, the tea production has been spread around the globe, and concentrated in certain areas. The size of the tea production areas by country is shown in Figure 3.2, in which it is seen that the majority of tea production areas are located in the equatorial region and the southern hemisphere, and clustered particularly in Asia, Africa, and Latin America.

Today, around 50 countries in these regions produce about 7 million tonnes of tea in an area of 5.31 million hectares (FAOSTAT, 2022). Considering the countries by their tea production areas, it can be said that nearly 65% of the areas are located in China (3.365.697 ha). Following China, India has the second-largest tea production

area with an area of 629.778 ha. The size of China's production areas is approximately 2.5 times the total tea production area of the four countries (India, Kenya, Sri Lanka, Indonesia), which have the largest tea production area after China.

Figure 3.2. Tea Production Areas of the Producer Countries, ha, 2020 (Created via mapchart.net, areas smaller than 1000 ha is not illustrated, Source: FAOSTAT, 2022)

In terms of employment in the sector, there are around 13 million people employed in tea production globally. Nine million of them are smallholder farmers while the remaining are employed in tea estates. Most tea is produced by smallholder farmers in China, Sri Lanka, and Kenya, where half of the world's production is carried out. Besides production, the processing, transporting, trading, and retailing are operated by millions of people (Thirst, 2022).

The production and export of tea have steadily increased worldwide, with some producing and exporting nations -like China and Kenya- undergoing significant changes. The main factor influencing this tendency is productivity, which advancements have impacted variety, cultivation, and processing technology (Kumarihami & Song, 2018).

Tea demand has been increasing due to developing and emerging economies, with East Asia, Africa, Latin America, and the Caribbean, the Near East stoking the flames of the expansion. However, tea consumption has been declining in the more

mature European markets and developed nations (FAO, 2022; Kumarihami & Song, 2018). Over the last decade, the global per capita consumption of tea increased by 2.5%, with notable increases in tea-producing nations.

In this section, the production, consumption, trade, and price conditions of tea will be discussed, and these factors will be detailed to comprehend the tea industry in the current global marketplace.

3.2.1 Production

The tea plant has two main varieties that are commercially cultivated: Camellia Sinensis var. Sinensis (China) and Camellie Sinensis var. Assamica (India). Even though tea plants can be grown almost everywhere in the world, in order to carry out commercial production, they must be grown in tropical/subtropical climates as stated in the previous section. Today, the plant is mostly produced in some of the least developed countries in the world. In fact, except for Argentina and China, all tea-producer countries rank below 100 on the Human Development Index (HDI).

To illustrate, countries are shown in Figure 3.3. in terms of their rate in human development index and GDP per capita, and these countries are divided into tea-producing and non-producing countries. As seen from the figure, tea is largely produced in countries with relatively low income, which mostly have a GDP per capita under $20 thousand.

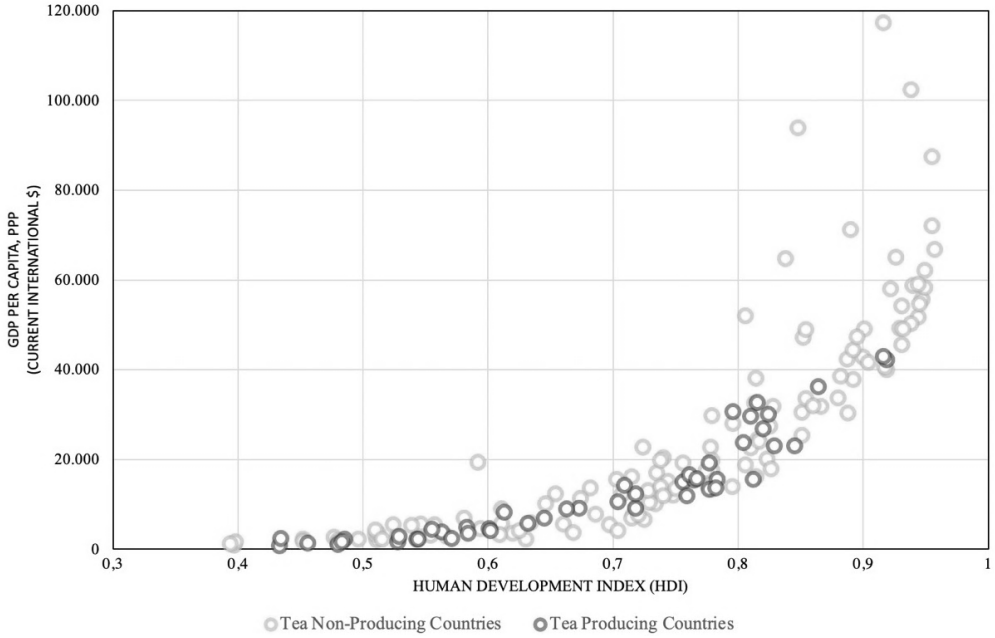


Figure 3.3. GDP per capita and HDI of the Countries, 2019 (UN, 2019; Worldbank, 2022)

There are different methods and activities in the tea production process. Mainly, fresh tea leaves are plucked and then processed into dry tea. Two production methods can be mentioned in tea processing: Crush Tear Curl (CTC) and Orthodox production. The CTC type of processing predominates mainly in African production. This processing yielded a finer tea grade and more robust cup, which is ideal for teabags. After being harvested and transported to the facility, the tea leaves are withered before being macerated in a sequence of fast-turning sharp rollers that crush, tear, and curl the leaf. At the end of this process, a mash of fine rolled particles is obtained (Thirst, 2022).

After the CTC process, tea is dried to nearly zero percent moisture content and allowed to oxidize on a conveyor belt before being graded into different sizes, ranging from the largest' broken' leaf to the tiniest powdery 'dust'. The various grades of the same tea serve different markets. For instance, the best Kenyan brokens are usually sold to Kazakhstan and Iran. Best mid-sized fannings are sold to Pakistan and UK, dust to Yemen and Afghanistan, and fibrous secondary grades to Sudan and

Somalia. Depending on the unique dynamics of supply and demand for the related market, each grade realizes a different price (Thirst, 2022).

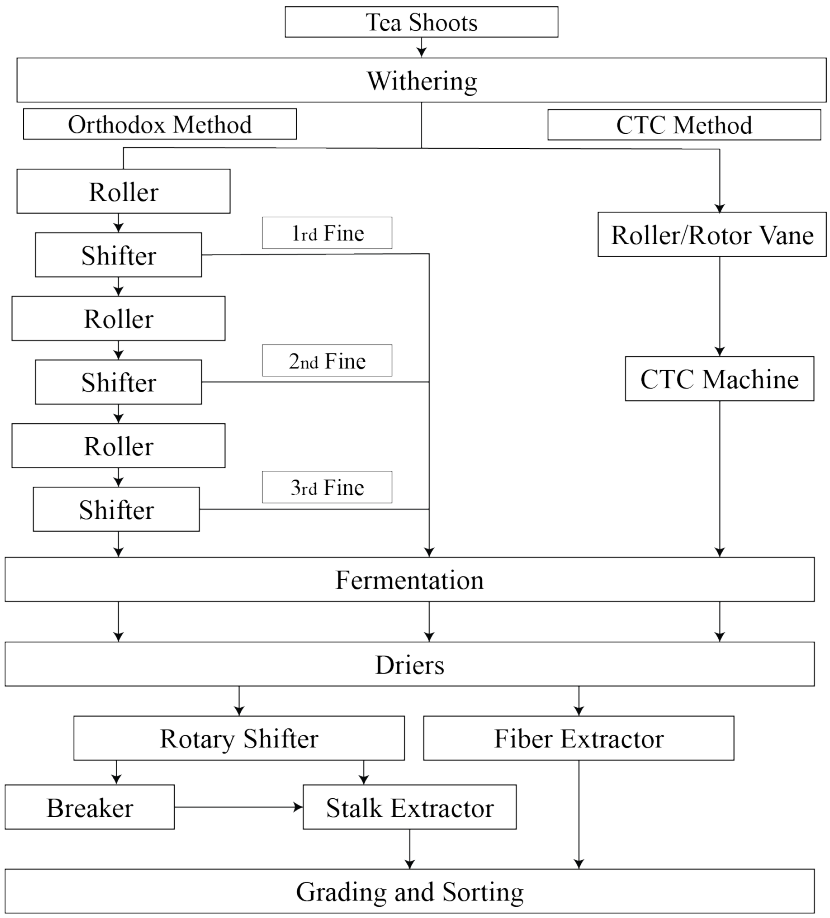


Figure 3.4. Tea Production Methods (TeaCupsFull, n.d.)

The Orthodox method, on the other hand, is used more commonly in Asia since processing tea through this method is possible domestically. While the plucking and withering processes are similar to the CTC method, tea is rolled before fermentation and passed through a gentler drying process instead of being macerated. Since green tea is not fermented, it has a more delicate flavor. A long, twisted leaf and varied broken and dust standards of the same quality are produced by Orthodox processing. Low-volume and specific products intended to express a distinctive flavor character, specialty teas, are typically made according to the Orthodox method. However, using this method does not always imply high-quality products. As with all tea production, quality is determined by the terroir, careful handling, and manufacture (Thirst, 2022).

As for the production volume of tea, it is seen that the global tea production has steadily increased over the past ten years (Figure 3.5). The total production rose 145% from 2.8 million tonnes in 1995 to 7 million in 2020. This upward trend accelerated, particularly in the 2010s, and the production has increased by 52% over the last ten years.

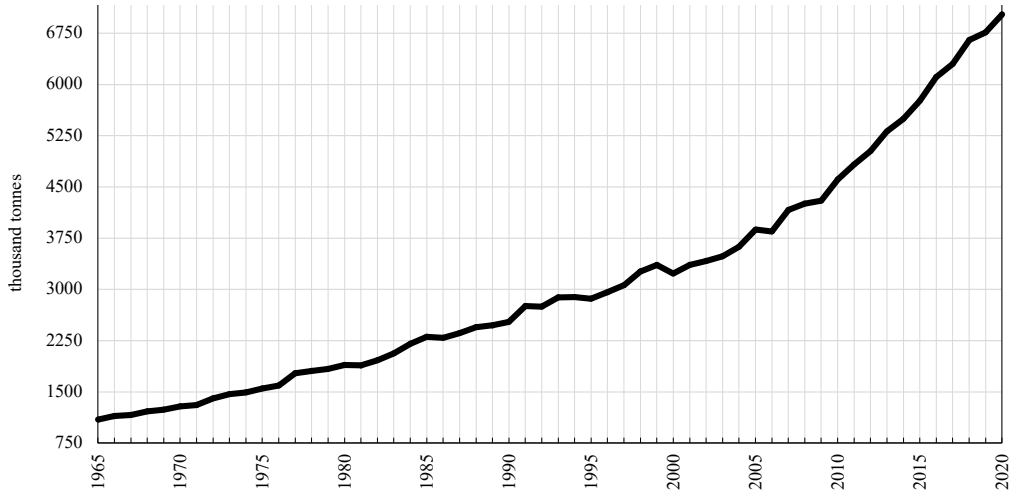


Figure 3.5. Global Tea Production, 1965-2020 (FAOSTAT, 2022)

As tea is produced in 50 countries from different geographies of the world (Figure 3.6), nearly one-fifth of them account for a significant portion of global production, with the top eight countries producing 86.5% of total global tea production, which included China, India, Sri Lanka, Kenya, and others. China is credited with introducing tea to the world and has been the world's leading tea producer since the mid-1990s, while India is the second largest producer. The global tea industry has steadily grown in production and export, with notable developments in major producers and exporters such as China and Kenya (Kumarihami & Song, 2018).

Figure 3.6. Production Quantity of Tea Producer Countries, tonnes, 2020 (Created via mapchart.net using FAOSTAT (2022) data.

Among these largest producers, China has a clear advantage in terms of production quantity. The country produced 2.92 million tonnes of tea in 2020. This production accounted for 46.6% of global output.

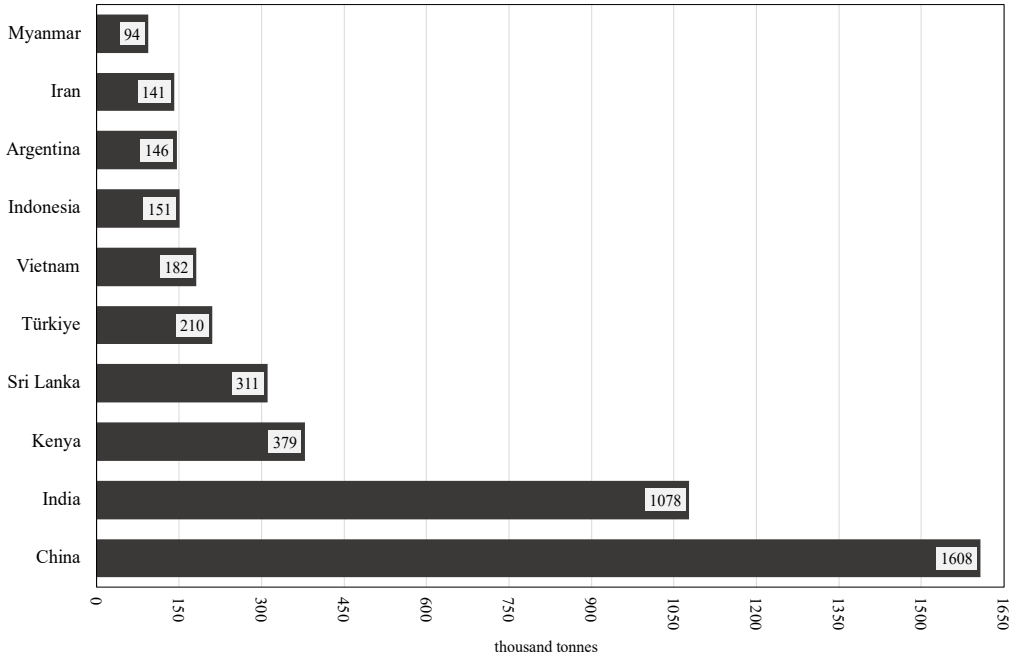


Figure 3.7. Average Production Quantity of Leading Tea Producers, 2000-2020 (FAOSTAT, 2022)

Considering the last 20 years, China has ranked first in average tea production with 1.6 million tonnes of produced tea. India and Kenya follow China with nearly 1.1 million and 379 thousand tonnes of tea, respectively.

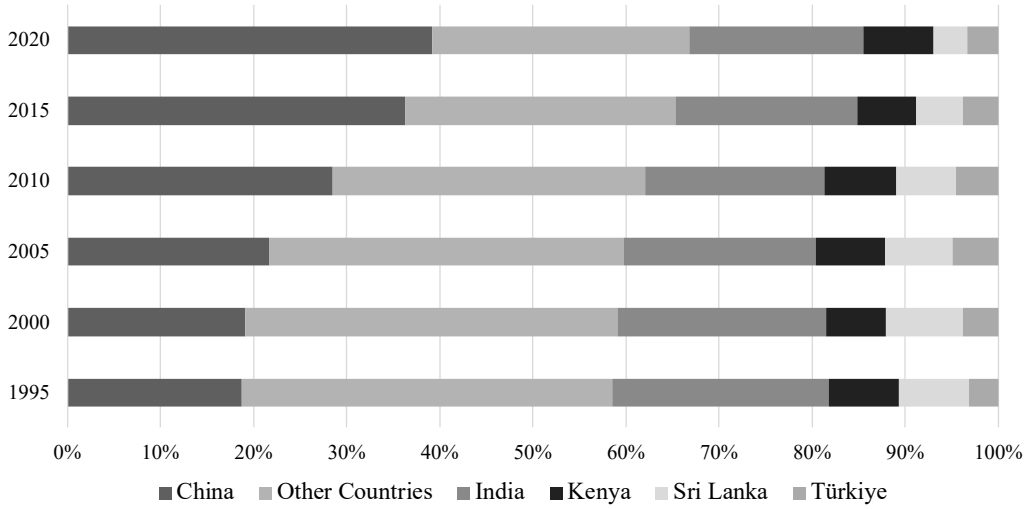


Figure 3.8. Distribution of Tea Production by Country, %, 1995-2020 (FAOSTAT, 2022)

Figure 3.8 shows the countries with the highest tea production every five years between 1995 and 2020. Accordingly, China, India, Kenya, and Sri Lanka consistently ranked in the top four in production during this period. Along these countries, Iran, Turkey, Japan, Myanmar, Bangladesh, Argentina, Vietnam, and Thailand are the other most prominent producers in the tea sector.

India, the second-largest producer, experienced a production fall of 9.6% to 1.26% tonnes from 1.4 million tonnes in 2019 due to unfavorable weather conditions and movement restrictions to contain the COVID-19 outbreak. Kenya and Sri Lanka, two top exporting nations, produced 571.805 tonnes and 283.943 tonnes, respectively. In 2020, production in Kenya rose by 24%, while it fell by 7.6% in Sri Lanka. The tea industry in Sri Lanka experienced its most significant year-over-year crop shortfall in recent memory due to extreme weather conditions, structural problems such as a lack of workers and stagnant productivity growth, and other problems. The sector was also impacted by supply chain disruptions and movement restrictions brought

on by lockdown procedures during the outbreak. There have also been concerns that the limitations and prohibition on fertilizer and agrochemical imports, which were put in place in May 2021 and lifted in November 2021, could further impact the tea sector in Sri Lanka and result in crop losses in 2022 (IGG/Tea, 2022). These are clear indications that tea production is highly fragile to various factors and can have significant effects on the sector.

Global tea production increased marginally in 2020 compared to 2019, as increased production of green tea and other teas partially offset a decline in the output of black tea. As black tea increases in some major producing nations, including India and Sri Lanka, it is estimated that the world's tea output will increase in 2021. In response to sustained firm prices and the perceived health benefits of green tea, the annual global production of green tea climbed by 4.5% and that of black tea by 2.4% during the past ten years (IGG/Tea, 2022).

3.2.2 International Tea Trade

Over the past years, global tea exports have grown by 5.1% annually to reach 2.1 million tonnes in 2020. This growth has been fueled by increasing shipments from Kenya, the world's largest exporter of black tea, as well as by strong annual growth in green tea exports of 2.3% as opposed to black tea exports of 0.1%. Despite increased shipments from Kenya in 2020, global tea exports fell to 1.74 million tonnes in 2020, down from 1.83 million tonnes in 2019, due to lower shipments from Sri Lanka, the world's second-largest exporter of black tea, China, and India. China and India experienced lower exports as a more significant portion of their output were consumed domestically. Global tea exports are estimated to recover in 2021, with preliminary data indicating that shipments from Sri Lanka have resumed and Kenya and China have increased their exports (IGG/Tea, 2022).

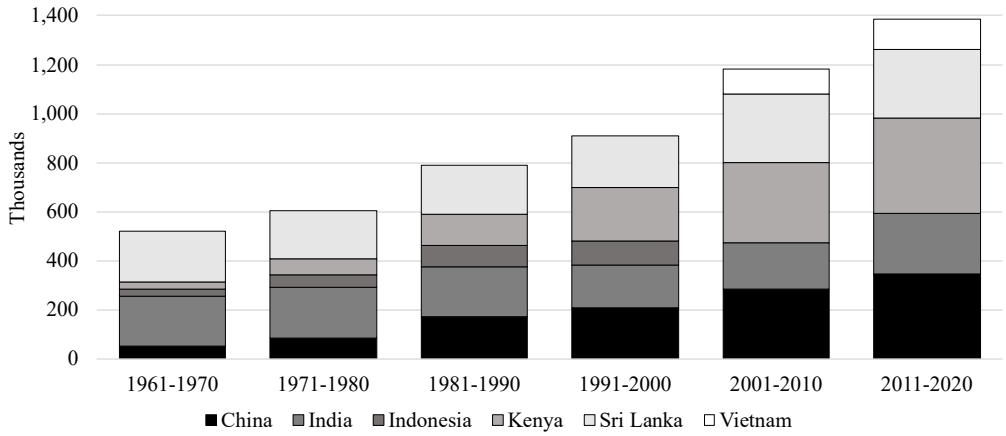


Figure 3.9. Export Volume of Top Five Exporters, tonnes, 1965-2020 (FAOSTAT, 2022)

Figure 3.9 shows the average export volumes of the top five tea exporter countries in 10-year periods between 1961 and 2020. Accordingly, the sum of the average export volume of the top five exporter countries has increased steadily. When the exports of the five largest exporting countries are evaluated proportionally, it is seen that the export shares of Kenya and China have increased every ten years. Kenya, which had an export rate of 5.1% between 1961-1970, increased its share to 28.2% between 2011-2020. Likewise, while China had a 10% share in the exports of the top five countries, the share of the country had increased to 24.9% in 2011-2022.

On the other hand, the export share of India had decreased from 1961 to 2010. The most remarkable development in this process is that Indonesia, which had a share of 10.5% in exports between 1991 and 2000, left its place to Vietnam after 2000. Accordingly, one of the five countries that managed to stay in the top five in terms of export volumes from 1961 to 2000 lost this position and a different country had taken its place in the top five.

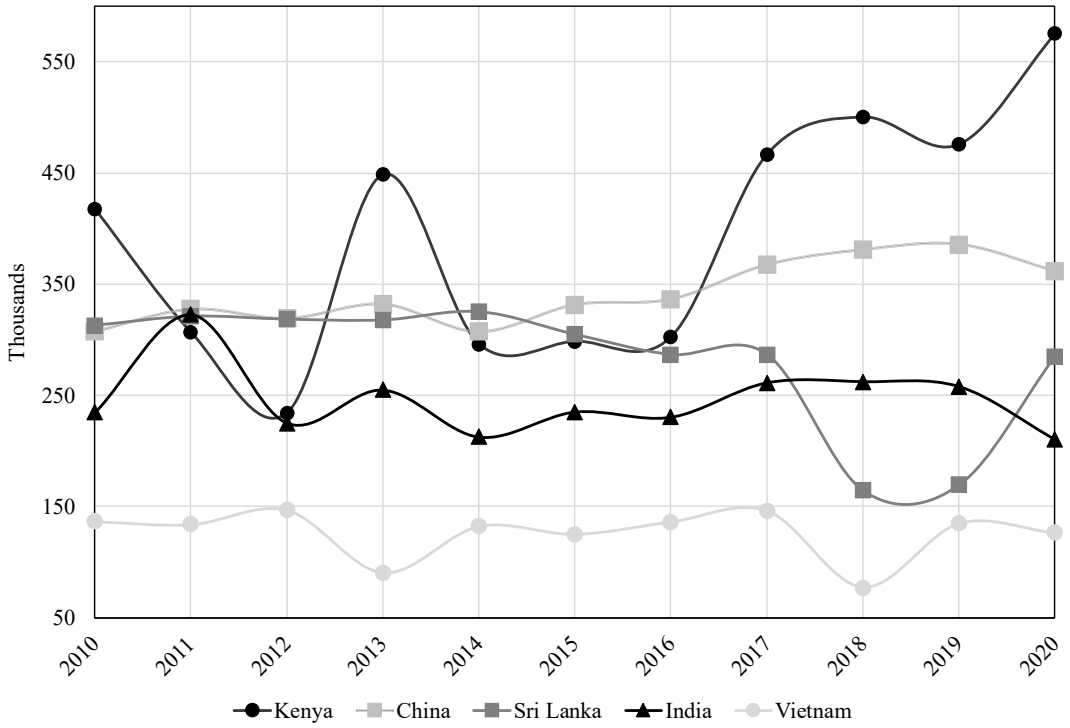


Figure 3.10. Export Volumes of Top Five Exporter Countries, 2010-2020 (FAOSTAT, 2022)

Figure 3.10 shows the changes in export volumes of the top five exporter countries. Such illustration is important in order to better comprehend the current trends in tea exports. Accordingly, between 2010-2020, the top tea exporters, namely Kenya, China, Sri Lanka, India, and Vietnam, exhibited a fluctuating trend in which the export volumes of the countries has experienced both increases and decreases in export volume over time. In addition, according to the figure, the export volume of two of these countries has changed over the years with greater accelerations than those of other countries. Firstly, Kenya's export amount has experienced sharper decreases and increases in the given time period. However, the export amount of the country is in increasing trend. Secondly, Sri Lanka has a more active export process compared to other countries. Sri Lanka, which had a decrease in exports from 2014-2018, increased its export amount even more, especially after 2018. However, in the light of the available data, it is seen that the country has not yet reached its export amounts between 2010-2011.

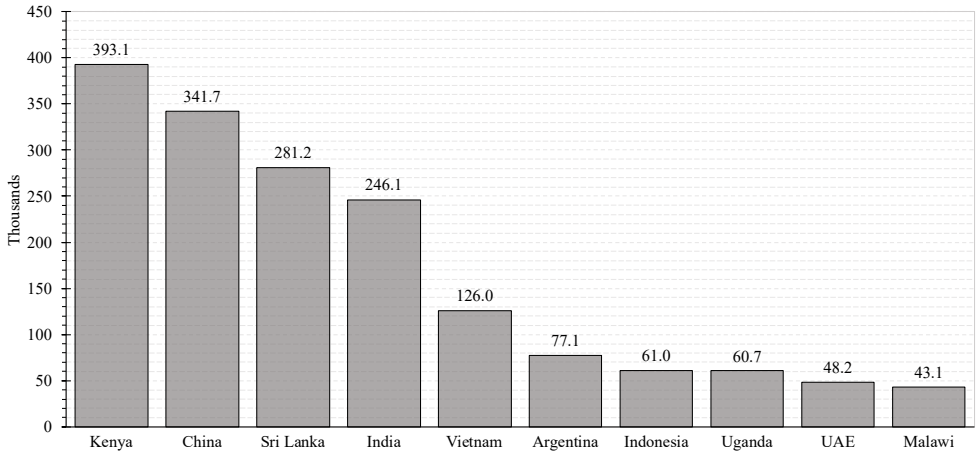


Figure 3.11. Top Ten Tea Exporters, tonnes, 2010-2020 (FAOSTAT, 2022)

As for the total export of the top ten exporter countries between 2010-2020, Kenya has the highest tea exports. The country has exported around 4.5 million tonnes of tea. China follows Kenya with around 3.7 million tonnes of exported tea. The other largest exporters between 2010-2020 are Sri Lanka, India, and Vietnam (Figure 3.11).

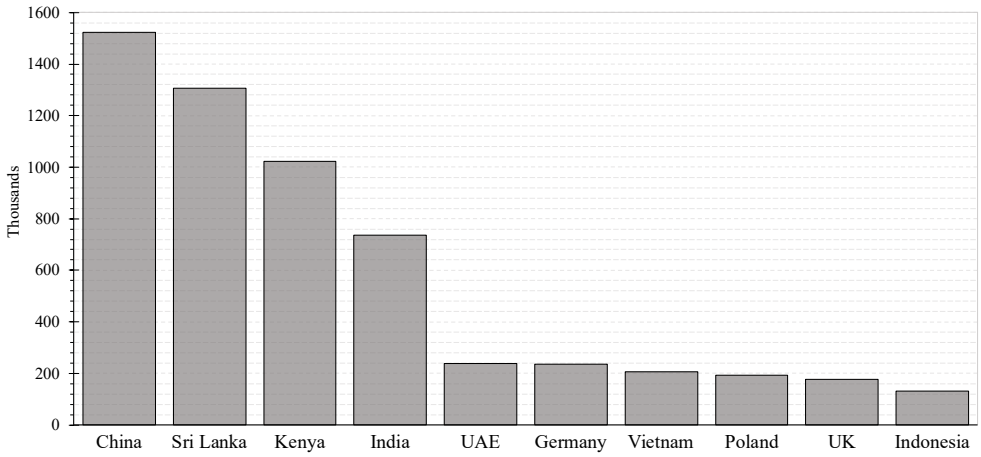


Figure 3.12. Countries with Highest Export Value, 1000US$, 2010-2020 (FAOSTAT, 2022)

Even though Kenya has exported the highest amount of tea, the country ranks third in the export value between 2010-2020. China, on the other hand, has the highest export value while ranking second in export quantity. Another striking point between Figure 3.12 and Figure 3.13 is that developed countries such as the United Kingdom, Germany, and Poland are in the top ten countries with the highest export value.

However, Argentina, Uganda, and Malawi are not on this list, while they are among the top ten exporters between 2010-2020.

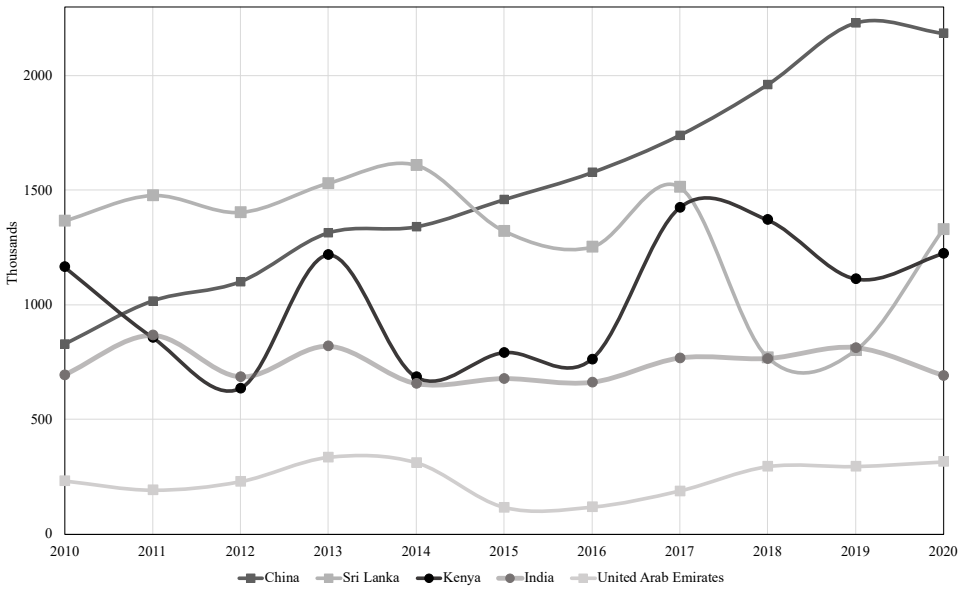


Figure 3.13. Export Value Trend of Top 5 Countries, 1000 US$, 2010-2020 (FAOSTAT, 2022)

In Figure 3.13, it is seen that China has achieved a continuous increase between 2010-2020 in the export value trend. While the United Arab Emirates and India have stable trends, Kenya and Sri Lanka have intense ups and downs in their export value.

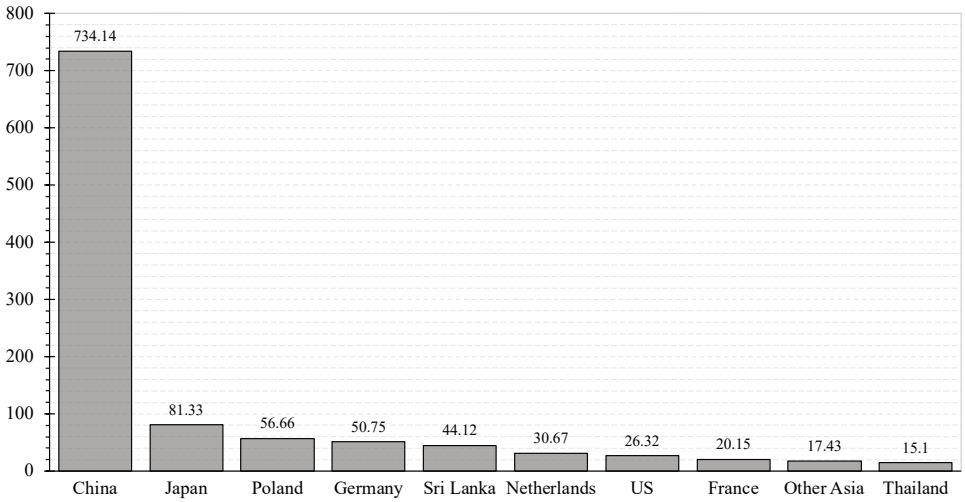


Figure 3.14. Leading Green Tea Exporting Countries, million US$, 2020 (Statista, 2022)

As mentioned at the beginning of the section, green tea exports have increased over time. In 2020, China achieved 734 million dollars in exports as the largest exporter of green tea (Figure 3.14). Accordingly, China exported almost ten times the value of tea as Japan, which ranks second in export value. On the other hand, Japan has continuously improved its green tea production despite decreasing tea cultivation areas and production in recent years. After 2020, the export value of Japanese green tea increased by 26,1% to ¥20.4 billion in 2021 and reached a record level in the country for the second year (Anonymous, 2022).

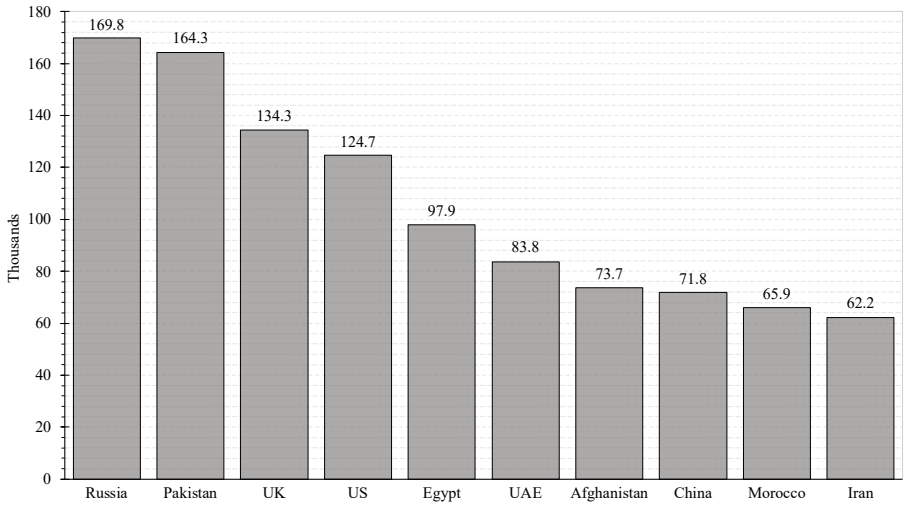


Figure 3.15. Top Ten Tea Importer Countries, tonnes, 2010-2020 (FAOSTAT, 2022)

As for imports, the top ten importer countries and their import quantities are depicted in Figure 3.15. Russia is the biggest tea importer, importing approximately 1.9 million tonnes of tea. Following Russia, Pakistan ranks second in tea imports with 1.8 million tonnes of imported tea, and the United Kingdom ranks third with total imports exceeding 1.4 million.

When only the data for 2020 are examined, an image that is compatible with the trends of the last 10 years emerges. In this direction, an examination will be made considering the sales of both green and black tea in packages of less than 3 kg and in packages of more than 3 kg.

The total value of black tea traded in packages of less than 3 kg in 2020 reached 1.9 billion dollars. Accordingly, the countries that export this product type and generate the highest income from it are Sri Lanka, United Arab Emirates, China, Poland and India, respectively. Sri Lanka, which is the top exporter of the product, obtained a total of 483 million dollars from this export movement. On the other hand, the top five importer countries of this type of tea are Saudi Arabia, the United States, China, Hong Kong, Iraq and Australia. The export and import values of the mentioned countries are shown in the Chart.

When the trade data is analyzed according to the trade value between the countries, the goods flows in the chart take the first 5 places. As seen in the chart, two separate export movements are seen in the top five of China and Sri Lanka. Accordingly, in 2020, China will receive 116 million dollars for Hong Kong and 36.7 million dollars for Myanmar; Sri Lanka, on the other hand, exported 59.5 million dollars to Iraq and 41.4 million dollars to Turkey. Apart from these two countries, which are important tea producers, the 78.7 million dollar export of the United Arab Emirates to Saudi Arabia was the second most valuable tea export movement of 2020.

The largest exporter of green tea, which is traded in packages of less than 3 kilograms, in 2020 is China. China, which has a clear advantage in green tea production, is Japan, Poland, Germany and Sri Lanka, respectively. The top five importing countries are the USA, Ghana, France, Hong Kong and Togo. In green tea, which is traded in packages of more than 3 kilograms, China, Japan and Germany are also included in the list of the top 5 export countries. But Poland and Sri Lanka have been replaced by Vietnam and India. The largest importers of this type of tea were Morocco, the United States, Pakistan, Almanta and Hong Kong. China alone obtained 525 million dollars from the export of this product, which reached a total value of 856 million dollars in 2020.

3.2.3 Consumption

As mentioned before, tea is the most consumed beverage in the world after water. Over the last ten years, tea consumed per capita worldwide increased by 2.5%, with considerable increases in tea-producer countries. As a result of their growing and emerging economies, demand has been rising, with East Asia, Africa, Latin America, the Caribbean, and the near East leading the way. In contrast with these countries, tea consumption has been declining in more developed European markets and other developed nations (FAO, 2022).

Between 2007 and 2016, global tea consumption increased at a 4.5% annual growth rate. Given that three-quarters of global production is consumed locally, it can be said that major producing countries play an essential role in this demand expansion. Moreover, population growth, urbanization, and rising earnings, particularly in emerging and developing economies, have all contributed to the increasing consumption of tea. While large markets like China and India account for a share of 38.6% and 19% of global tea consumption, respectively, several small but quickly rising markets have grown far faster than the worldwide average annual growth rate of 4.5% between 2007 and 2016. In this period, Rwanda, Malawi, and Uganda experienced the highest annual growth rates, rising by 26,8%, 19,8%, and 16,5%, respectively. On the other hand, the top consumer, China, experienced an average growth rate of 10.1% over the past ten years. It was followed by countries such as Israel, Kenya, Pakistan, Bangladesh, Libya, Malaysia, Germany, Turkey, Indonesia, Nepal, Brazil, Saudi Arabia, and the United Arab Emirates (IGG/Tea, 2018).

Over the years leading up to 2020, global tea consumption rose by 3.6% yearly to 6.1 tonnes. The rapid increase in per capita income levels, particularly in China, India, and other Asian and emerging economies, served as the foundation for the expansion. Most African, Asian, and Latin American nations that produce tea have seen significant demand increases. Consumption increased in China at an average annual rate of 7.3% throughout the ten years, reaching 2.6 million tonnes in 2020, representing 43.1% of global consumption. India was the world's second-largest tea

consumer in 2020, making up 17.5% of the world tea consumption, predicted at 1.07 million tonnes. Tea consumption climbed globally by 1.07% in 2020 compared to 2019 and continued to rise in 2021 as strong demand continued to support the sector (IGG/Tea, 2022).

On the other hand, tea consumption has fallen throughout the traditional tea-importing regions of Europe, North America, and the Russian Federation over the last decade. The per capita consumption of tea in Europe has declined due to increased competition from alternative beverages, bottled water, and carbonated drinks in particular. In contrast for the Russian Federation, tea imports may have been adversely influenced by the drop in oil prices (IGG/Tea, 2022).

Various factors, including prices, income, and demographics, primarily affect the demand for tea. Additionally, the growing understanding of the health advantages of drinking tea and the process of product diversification draws more customers from non-traditional groups, particularly young people (IGG/Tea, 2022). Notably, the rising aspirations for health and wellness have given rise to premium and super-premium segments of the market. Parallel to this, the popularity of green tea has been increasing in numerous markets, particularly in Europe, due to the actual or perceived health benefits of the beverage. Additionally, higher-quality specialty teas with specific flavors have been gaining popularity. Also, the need for innovation has become evident as a result of the interest of the public in premium organic, locally sourced teas in various blends, flavors, and settings. Therefore, the tea market, marked by innovation and premiumization, has been drawing an increasing number of young customers and the emerging middle class (IGG/Tea, 2018).

The tea sector is expected to grow further due to rising demand, primarily from Asian and Pacific countries with rising incomes. The demand has been rising with a growing clientele of young urban consumers, interest in the health benefits of the beverage, and the introduction of new products and flavorings, such as ready-to-drink tea, premium tea, and herbal and fruit fusions. Furthermore, green tea consumption is likely to outstrip black tea demand. It is also worth mentioning the

significant expansion of sustainable tea products. In 2016, tea that met Voluntary Sustainable Standards (VSS) accounted for 19.4% of the market, up from 2.4 percent in 2008. However, just 6.6% of tea production is theoritically VSS-compliant, leaving 74% of tea as conventional (Voora, 2019).

3.2.4 Prices

Economic growth in several developing countries, including China, India, and Russia, has generated a sizable middle class with a predilection for high-end tea blends and brands. Accordingly, this customer group frequently upgrades their purchases from loose-leaf tea to specialized kinds that are packed and bagged. As a result, while the cost of other beverages decreased between 2007 and 2018, tea prices, as indicated by the FAO tea composite price, had risen (IGG/Tea, 2018).

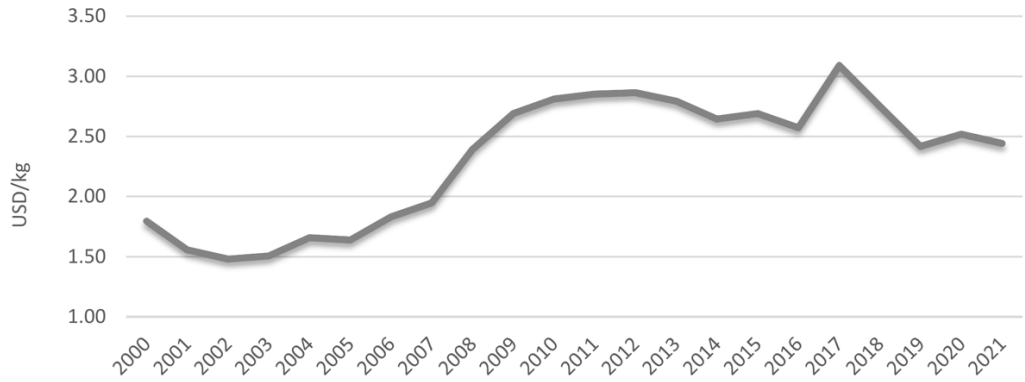


Figure 3.16. Tea Composite Price, 2000-2021(FAOSTAT, 2022)

However, there has been a decrease in tea prices due to excess tea in the market in 2018-2019. Furthermore, in 2020, tea prices increased again. The reason for this rise is that the recent pandemic crisis affected tea prices due to changes in consumer habits. With the isolation process brought about by the pandemic, out-of-home consumption has experienced a remarkable decrease. However, with this decrease, there has been a similar increase in domestic consumption. In the face of this situation, the FAO tea Composite Price increased by 4.2%, balancing the prices against the falling out-of-home consumption rate. However, the price of tea, which

was $2.52 in 2020, dropped to $2.44 in 2021. This decline can be attributed to logistical reasons due to the pandemic and Kenya's selling its teas at a competitive price due to overproduction (FAO, 2022).

Additionally, some factors affect the international price of tea. These factors include market access, the possible impact of pests, illnesses, climate conditions, and shifting relationships between value chain actors (FAO, 2022). However, the globalization of production and trade processes has increased the fragility of production and trade against global developments. For instance, the ongoing war between Russia and Ukraine has adversely affected the tea sector in Kenya since Russia has been the fifth-largest consumer of Kenyan tea. Under the war's influence, Russia's earnings sharply declined in March, with the volumes sinking to 686.072 from 2.6 million kilos sold last year (Andae, 2022; Muia, 2022).

In this process, not only exports to Russia were harmed, shipping of the beverage to western countries has been hampered due to the closure of shipping routes in the Black Sea since Russia invaded Ukraine in March 2022. The closure of the shipping routes hindered movement and reduced demand for the beverage in several countries that relied on the Black Sea as their primary shipping route. Also, it increased the expense since ships had to travel extra distances to reach their destination. Due to the lack of demand from several recipient nations, the amount of unsold tea increased to 27.4% in August 2022, up from 14.75% in February, and the average tea price fell by $0.31 (Andae, 2022; Muia, 2022).

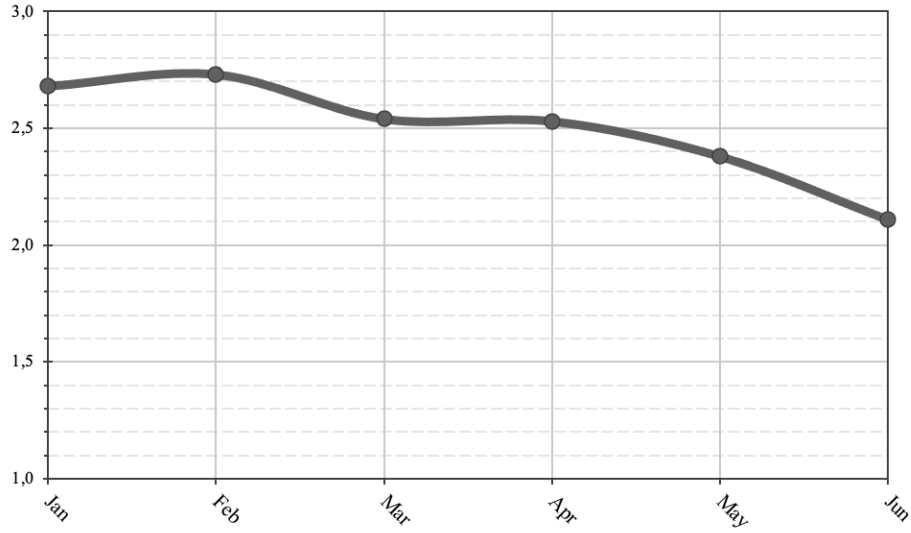


Figure 3.17. Tea Monthly Price, USD/kg, Jan-Jun 2022 (IndexMundi, 2022)

Figure 3.17 depicts the monthly price of tea from January to June 2022. The tea price was 2.68 USD/kg at the beginning of the year. Although the price of tea increased in February by 1.87%, it decreased continuously after February. Particularly between May and June, there was a sharp decrease of 11%, and the price of tea became 2.11 USD/kg. As a result, tea prices fell by one-fifth to $2.11 in half of the year.

3.2.5 Challenges of the Tea Industry

The global tea industry faces numerous challenges that must be dealt with to ensure the industry's long-term sustainability. One of the biggest challenges for the industry is the climate change phenomenon which poses a major threat to not only tea production but also all agricultural systems on a global scale. The phenomenon has a triggering effect on the increases in mean temperature, greater frequency of extreme weather events, the emergence of pests and diseases, and many more incidents. Consequently, it is expected to adversely affect tea production, which is highly vulnerable to such climate-related events since the plant is grown under rain-fed mono-cropping systems and the optimal growth is highly correlated with weather conditions (FAO, 2022; Kumarihami & Song, 2018; Muoki et al., 2020).

Through these impacts, climate change causes significant fluctuations in the yield of tea plants. The occurrence of droughts, as a consequence of heavy rainfalls, has the potential to cause irreversible losses of yield by seriously harming the tea fields. Also, heavy rains bring about water logging, erodation of top soils, and leaching of crucial nutrients in soil extensively (Wijeratne, 1996, as cited in Ahmed et al., 2018). Along with the decreasing tea yields, tea quality is also declining due to the higher precipitations and other impacts of climate change. Particularly heavy precipitations cause significant shifts in the plant's volume of aromatics and metabolites. Additionally, the reduced water content in drying soils can adversely affect tea quality (Kumarihami & Song, 2018).

In the last few decades, tea supplies have been decreasing in the main tea-cultivated areas in relation to the impacts of climate change. FAO also acknowledges that the limited agroecological space where tea production is carried out is threatened by the phenomenon (McNamara, 2020). For instance, the tea quality and yield in Uji, an old and widely-known region of green tea in Japan, has been decreasing under the influence of climate change. The productivity of tea plantations in Korea has been reduced by the extremely low temperatures experienced. The third-largest tea producer in the world, Sri Lanka, also has been exposed to such occurrences. Due to the drought that took place in the country, Sri Lanka experienced a 15% decline in tea production in the first half of 2020 (Kumarihami & Song, 2018).

Today, tea production is a significant livelihood opportunity for millions of people in particular Asia and Africa continents. Considering the increasing financial vulnerability of all actors in the sector, particularly tea farmers, it is clear that the destruction of the sector will have severe consequences on regional economies and the well-being of millions of people (FAO, 2016; Kumarihami & Song, 2018).

Besides climate change, numerous challenges are related to the sector. Since tea plant is mainly grown in monocropping systems and on slopes that are highly vulnerable to erosion, the soil fertility of tea fields tends to be at low levels. Thus, to make up

for this loss of fertility, organic and inorganic fertilizers are used, which increase the amounts of agrochemicals applied (Kumarihami & Song, 2018).

As a labor-intensive industry, the tea industry faces crisis arising from the high production costs. Beside from the initial ploughing and general preparation of land and planting seeds, tea plants also need maintenance year-round. Through this maintenance, the weeding, mulching, pruning, and trimming to the required height of one meter for easy plucking.

Through this exploration, the challenges of the tea industry are summarized. However, it is clear that the challenges are not limited to these mentioned problems of the sector. Most of the tea-producing regions have distinctive challenges based on their own dynamics. In the next section, the tea sector in Kenya, Sri Lanka and Nepal is explored, and their own challenges is mentioned.

3.3 Global Production Networks of Tea

Today, global production networks and value chains function as channels through which firms produce their products and present them to their consumers. In this direction, tea is an agricultural product that reaches the consumer by passing through such a chain and network.

The high-level concentration of downstream segments is a defining feature of the global production networks of tea. Since tea is typically exported at a relatively early point in the supply chain, the most lucrative stages, such as marketing and packaging, take place in consumer countries (Neilson & Pritchard, 2009 and van der Wal, 2008, as cited in Riisgaard & Okinda, 2018).

In the context of global production networks, each product and each location have its own dynamics. When developing sectors and regions, it is essential to consider examples of different regions and applications and examine the strategies applied for regional development.

In this direction, in this part of the thesis, examples of regions that have an essential share in tea production and are included in global production networks will be examined. The review aims to understand the structure of the production networks of tea and to identify possible upgrading options in the production chain of the tea industry in the Eastern Black Sea Region by seeing different upgrading options through different examples. Therefore, Nepal, Sri Lanka, and Kenya are chosen as examples to be discussed in the study due to their different industry structures and upgrading preferences.

Figure 3.18. Tea Growing Districts of Kenya

Kenya is the first country to be considered regarding tea production networks in this study. The country has a total area of 583.000 square kilometers and can be divided into four zones geographically due to its location on the equator. These four zones include: (1) The coastal regions with their white beaches, coral reefs, and scorching temperatures all year round, (2) the Rift Valley and Central Highlands in which Lakes Nakuru and Bogoria and Mount Kenya are located, (3) Western Kenya, with its rainforest and green tea plantations vanishing into semi-desert in the south, (4) the east and north with the vast semi-arid bush region where the rain is scarce. Because a hot and humid climate is necessary for the cultivation and production of

tea, both the Central Highlands and western Kenya have the required conditions (Jolliffe, 2007).

The first import of tea to Kenya was made by the colonial government in 1903. After this introduction, commercial planting of the crop began in the 1920s by the British Brooke Bond company and started to dominate production and marketing. Even though tea cultivation is a relatively new sector in Kenya, it has developed quickly and established firm roots in the Kenyan economy. Before 1960, only white colonial settlers and international businesses produced tea in Kenya as a plantation crop. Since then, value chain changes have been made to products and processes. Following WWII, Kenyans requested greater involvement in cultivating their nation's primary export commodity, and private tea businesses launched smallholder schemes in response. Consequently, the process improvements encouraged a switch from plantation to smallholder tea production. This switch also benefited from lower costs and higher productivity of smallholder tea cultivation (Mohan, 2018; Stathers & Gathuthi, 2013).

After launching smallholder schemes, The Kenya Tea Development Authority (KTDA) was founded in 1964 to protect smallholders, foster their growth, and create a market niche for them on the global tea scene. The KTDA constructed state-owned tea factories in charge of processing and marketing and purchased green leaves from smallholder producers. Later, KTDA was privatized in 2000 due to the structural adjustment program, changing its name to Kenya Tea Development Agency (Stathers & Gathuthi, 2013). As a large umbrella organization, the power of the Kenya Tea Development Agency, which trades, manages, and monitors a substantial portion of the country's tea production on behalf of smallholders, characterizes the tea sector in the country (Foster & Graham, 2017).

Figure 3.19. Tea Exports of Kenya, 2020 (*ResourceTrade.Earth*, n.d.)

In Kenya, the tea industry employs, directly and indirectly, five million people (Tea Directorate, 2022), including smallholder farmers and their families, and provides a living for about one-tenth of the country's residents. The country was the third-largest tea exporter in the world in 2020, with $1.2 billion in tea exports. Also, tea was the most exported product in the country. The main buyers of Kenyan tea were Pakistan, Egypt, the United Kingdom, United Arab Emirates, and Russia (OEC, 2022). The export to these countries accounts for almost 75% of Kenyan tea export.

Kenya is the world's top exporter of tea and, after China and India, the third-largest commodity producer. There are two categories of growers in the country: smallholder farmers and large-scale estates. Sixty-eight tea-processing facilities that 54 KTDA smallholder tea firms manage and 39 privately held tea estate firms operate in the region. Over 560.000 smallholder farmers sell their goods through these KTDA firms. On the other hand, the estates are run and owned by global firms such as Finlays, Williamson Tea, and Unilever Tea (Laibuni et al., 2017; Stathers & Gathuthi, 2013).

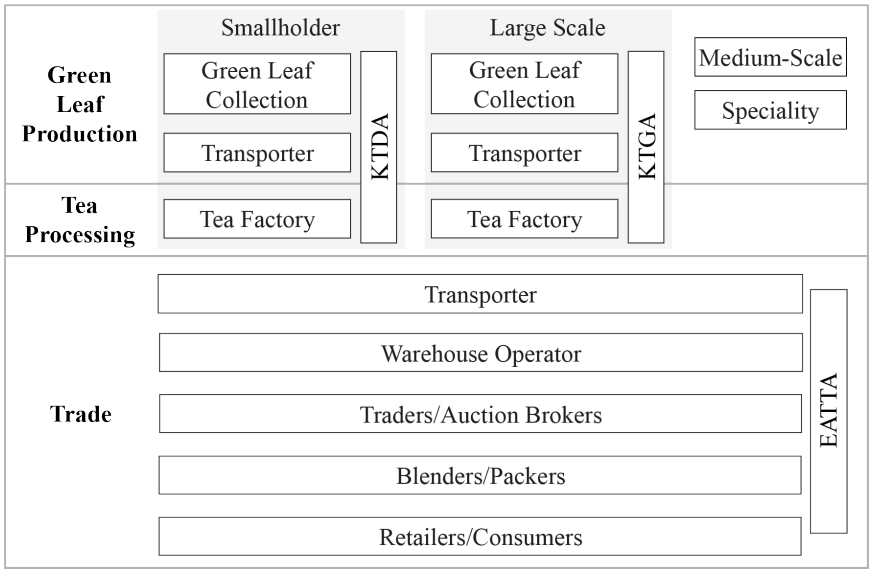


Figure 3.20. Tea Value Chain in Kenya (Laibuni et. al., 2017)

In the country, around %70 of the production is made by smallholder farmers, who typically own 0.2 hectares or less land. Farmers who own more than 10 hectares of land are considered large-scale farmers. The Kenya Tea Development Agency, run by 68 companies around the nation, buys the products that small farmers produce on a small scale. On the other hand, The Kenya Tea Growers Association, which is primarily composed of large-scale growers who process their own tea, is the organization that represents the industrial and large-scale plantations. The association has about 45 members, with Sasini Tea and Coffee, Williamson Tea Company Limited, Eastern Produce Company Limited, James Finlay Company Limited, and others serving as the major players (Stathers & Gathuthi, 2013).

The plantation-based processing firms only use leaf from the plantations they own and employ locally hired laborers to work. Both domestic and foreign-owned businesses can be found in this category, and each has a distinct management style. For its MNC's value chain, foreign-owned plantation-processing firms like James Finlays act as local producers of raw materials and export manufactured tea that will be sold under the parent company's name. The majority of domestic plantations, on the other hand, are family-owned and offer a more comprehensive range of products,

such as bulk black CTC tea and black, green, and packet value-added tea (Mohan, 2016).

The Kenya Tea Growers Association (KTGA) works to advance the shared objectives of its members in the production and cultivation of tea, as well as solid labor laws and policies for the workers' wages. Thirty-nine factories are owned by KTGA members and are run independently. The large-scale tea producers not only process the green leaf harvested by employees on their own states, but they also buy from nearby small tea growers known as ‘outgrowers’. Along with the multiple processing plants of the large estate firms, there is an increase in the number of smaller private tea processing factories (Stathers & Gathuthi, 2013). Also, besides the smallholder producers of KTDA and the large-scale estates of KTGA, there are separate groups of growers that contribute about 8% of the nation's total tea production (Laibuni et al., 2017).

Another actor who grows tea is the Nyayo Tea Zones Development Cooperation Limited. The institution also cultivates tea as a buffer zone around the forests. This public institution promotes environmental conservation by preventing encroachment by people into the water catchment areas. The institution has two factories and manages 3.488 hectares. In addition to safeguarding forests, tea zones also aid in the restoration of sensitive natural areas. Farmers deliver the green leaf to the collection centers once it has been picked. After that, the green leaf is transferred to the nearest factory for processing (Laibuni et al., 2017).

The productivity varies due to differences in inputs used on small- and large-scale tea farms and crop management approaches. Small-scale farmers produce between 2,127-2,291 tonnes per hectare, whereas large-scale farmers produce between 2,834-3,412 tonnes per hectare. This equates to an annual yield of 1 kilogram of green leaves per bush for smallholders and 3.5 kilograms for estates. However, Kenya produces more per hectare than some of the largest global producers, such as India, China, and Sri Lanka. Land, labor, seedlings, capital, and fertilizer are some of the most critical inputs in the tea industry (Laibuni et al., 2017).

The minimal added value characterizes tea processing. In Kenya, most of the production (96% of the total) is constituted by black tea produced using the CTC method. However, green, white, and orthodox teas are produced in small quantities by wilting, browning, oxidation, fermentation, rolling, and drying tea leaves. These teas produced, on the other hand, constitute only 4% of the production.

In Kenya, there are 106 tea factories in operation. By way of shareholding, tea producers own KTDA factories with various processing capacities. Two factors determine the quality of tea that is produced in these factories. The first is the geographical conditions in which the tea is grown, which include soils, climate, rainfall patterns, temperatures, and crop husbandry practices. It is also determined by each factory's level of mechanization and efficiency (Laibuni et al., 2017).

After the processing stage, the produced tea is sold in the domestic and global markets via contracts and an auction in Mombasa. The qualifications of the tea that are sold in these markets differ. While tea is sold in a blended and packaged form in the domestic market, it is sold in packages of 50-70 kg globally. Moreover, domestic tea is sold through wholesale and retail chains, whereas export tea is sold at auction in bulk (Laibuni et al., 2017).

Depending on the import markets, the blending and packaging stages are generally carried out outside the country. While black tea is preferred in countries such as Egypt, Pakistan, and the United Kingdom, green tea is mostly demanded by France, and Germany prefers specialty teas. The market entry barriers limit the participation of small-scale farmers in these production networks. These barriers are particularly prevalent in high-end tea markets, including quality, food safety requirements, and consumer drive standards (Laibuni et al., 2017).

Figure 3.21. Tea Exports of Kenya, Black Tea In Packages > 3 kg (*ResourceTrade.Earth*, n.d.)

The downstream tea value chain is represented by East African Tea Trade Association (EATTA) and the Kenya Tea Packers Association (KETEPA). The tea trade association gathers different groups of actors such as tea farmers, brokers, buyers, packers, and operators of different warehouses. It acts as a facilitator in trade in the Mombasa tea auction, tea trade arbitration, and the compilation and dissemination of statistical data. KETEPA, on the other hand, is one of the subsidiaries owned by KTDA and engaged in tea marketing. The association mainly participates in tea blending, packaging, and distribution for the domestic market. Also, another subsidiary of KTDA, Chai Trading Company, engages in warehousing, blending, bulk packing, and trading of tea to international markets. Also, KTDA owns Dubai City Centre Mirdif, which carries out Kenyan tea marketing activities in the Gulf region, Middle East and Russia (Laibuni et al., 2017).

Along with the distribution of tea through KTDA, there are also some direct sales along with the Mombasa auction. The auction mechanism is open to the public, and market forces set the prices. Supply of tea, demand from export markets, changes in other international auction prices, currency fluctuations, and tea quality are important determinants of price (Riisgaard & Okinda, 2018). With the establishment of KTDA,

early support for tea cultivation is provided by a particular crop authority to increase yield. By supporting the Mombasa auction, the primary distribution channel for KTDA tea, and building fundamental road and electrical facilities, the government also helped to establish the tea value chain infrastructure. The Kenya Bureau of Standards started conducting tests and verifying adherence to these standards when foreign importers demanded evidence of compliance with the government standards of the importing country. Factory checks and testing of the finished product also confirm adherence to a Kenyan code of conduct (Mohan, 2018).

Certification was put into place along with farmer training programs. Farmers became active field experimenters due to farmer field schools, which also served as a venue for in-depth education about agricultural techniques. Farmer field schools are intimate groups of farmers that gather twice a month for two-hour sessions with a factory facilitator to learn through experiments, special topic sessions, interactive group activities, field days and study visits, and experimental learning. The organization in charge of organizing them may have to spend a lot of money and labor, and there is not much room to expand them to thousands of farms. As a part of the KTDA-Unilever-Alliance certification procedure, larger-scale programs for training trainers have been implemented in Kenya (Waarts, 2012, as cited in Mohan, 2018). In these programs, a select group of lead farmers is trained by government or factor experts, who subsequently train every farmer who supplies the factory. However, the passive nature of information sharing and learning in such schemes may limit their ability to alter agricultural practice (Mohan, 2016).

Later, product upgrading from bulk export sub chains of low quality to high quality took place, primarily through certification to agricultural standards. Adopting these programs improved leaf quality and manufacturing techniques, but most critically, it gave Kenyan tea access to the premium bulk export sub-chain. The high-quality bulk chain offers several benefits over the low-quality sub-chain, including the ability to sell tea for US$5/kg instead of US$2/kg. Additionally, it is more stable and less competitive. Today, more than 80% of Kenyan tea production, including tea from MNC-owned plantations and a large portion of the smallholder sector, is certified to

private sustainability standards due to their involvement in a significant partnership between Unilever, KTDA, and Rainforest Alliance to encourage Rainforest Alliance certification among smallholders (Mohan, 2018).

The second country to be considered in the study is Sri Lanka, an island situated in the Indian Ocean off the southeast coast of India and divided from the Indian peninsula by the Palk Strait. It spans a total area of 65.610 km^2 and is located between latitudes 5°55' and 9°51' N and longitudes 79°41' and 81°53' E. There are many different agroclimatic regions where tea is grown in the country. The majority of the tea-growing regions of the island are centered in the southern inland and central highland regions (Gunasekare, 2012). In Figure 3.22, the tea-growing districts in Sri Lanka are illustrated.

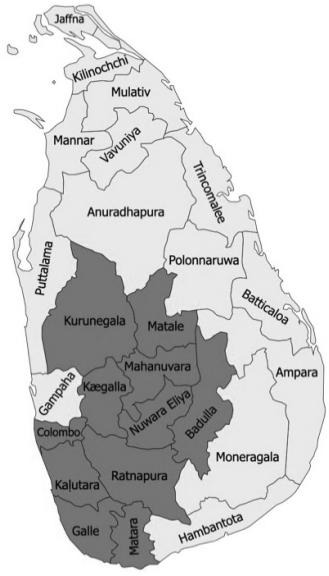


Figure 3.22 Tea Growing Districts in Sri Lanka

Tea production has been a pivotal contributor to Sri Lanka's economic prosperity since its inception as a plantation production system during European colonial expansion (Herath & Weersink, 2009). The country was the world's top tea producer for over a century (Mujahid Hilal, 2019). Tea plantations started by the British were initially taken over by the government in 1960s but have been privatized and managed by plantation companies. As the world's greatest tea exporter in the 1960s,

its market share began to decline as other Asian and African nations gained a competitive edge from the 1970s through the 1990s. Due to the decline in global prices caused by the increased supply of tea, the country's export revenues also fell, and it became unable to compete on volume alone due to its productivity being relatively poor compared to other top exporters (Mohan, 2018).

However, Sri Lankan tea continued to have a distinct reputation in the areas where Ceylon tea is sold (Mujahid Hilal, 2019). The Ceylon tea, which is widely regarded as the best in the world, has its own distinctive qualities and a history dating back more than a century. The product has a variety of flavored and aromas that are indicative of quality due to the influence of the climate of the plantation in Sri Lanka (EDB, 2022). Therefore, by emphasizing high-quality and branded tea exports, Sri Lanka maintained its position as the world leader of tea in the world. With a production share of 10% in the international market and a share of about 19% of the world's demand, Sri Lanka is also one of the top exporters in the world (Mohan, 2018; EDB, 2022).

Today, a large amount of the country's export, roughly 90%, is transported to the global markets, unlike other major producers. The sector provides more than a million employees in direct and indirect ways. Also, around 15% of foreign exchange profits of the Sri Lankan economy are received from the tea industry. Therefore, any shift in the industry has great potential to significantly impact the state of the Sri Lankan economy (Mujahid Hilal, 2019).

Black tea from Sri Lanka is the most valuable black tea exported, fetching a premium on international markets. Tea is one of the key exports from the nation. It was the source of 62% of agricultural export revenue and 13% of all export revenue in 2015. Despite contributing only 2% of GDP, the tea industry continues to play a significant role in the economic and social advancement of the nation, providing jobs for 2.000.000 people, who make up 10% of the total population. A 400.000 strong small-scale tea growing community, which produces 73% of the nation's tea while estates produce 23%, contributes to this enormous industry (Mohan, 2018).

In terms of value addition, about 50% of the tea produced in Sri Lanka is exported in value-added form. Green tea, flavor-enhanced tea, organic tea, instant tea, iced tea, and ready-to-drink tea are all part of Sri Lankan tea's value-added product line. Recently, cosmetic items like shampoo, bath gel, and soap with tea as an ingredient were also added to the production line of the country (EDB, 2022).

In the production network of the Sri Lankan tea industry, tea production segment is mainly carried out by tea smallholders and plantations.

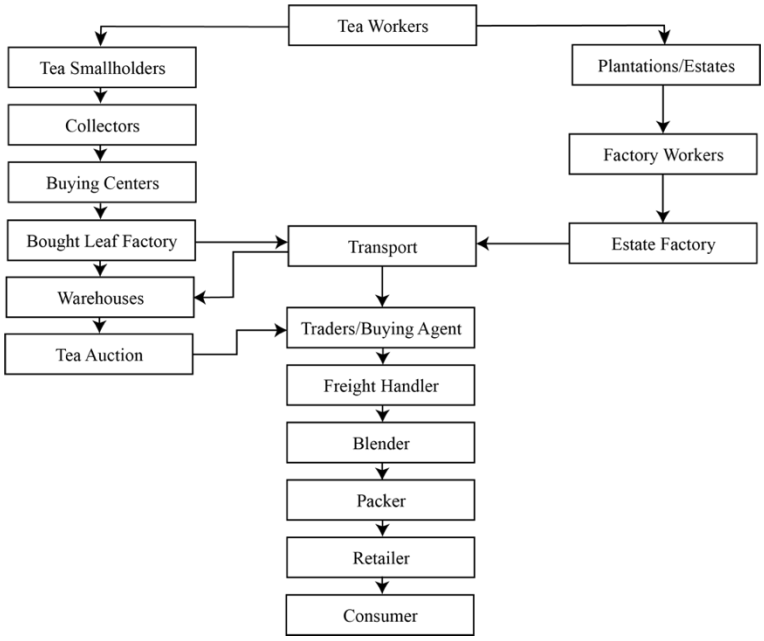


Figure 3.23. Tea Value Chain in Sri Lanka (Samarakkody & Alagalla, 2021).

Processing factories in Sri Lanka are either supplied by the harvest from a plantation that belongs to the factory, by smallholder farmers in a system known as 'bought-leaf,' 'outgrower,' or 'contract' setup, or by a combination of leaf from both small-holder and plantation farms. All processing firms in Sri Lanka are owned domestically, either by a single local entrepreneur who manages them personally or as joint ventures with a small amount of foreign ownership.

Active government policymaking pushed functional upgrading in processed tea products like tea bags (Ganewatta et al., 2005; as cited in Mohan, 2018). A significant portion of Sri Lankan tea exports was transferred to the top of the high-

quality bulk tea production network, which included farmer training, factory improvements, and government labeling of top Sri Lankan tea with the Lion Logo brand. Due in large part to the lack of demand for certification among its customers, Sri Lanka has generally avoided certification. Instead, firms aim to be certified to the Lion Logo, global private standards, and taste quality requirements (Mohan, 2018).

The third tea producing country considered within the scope of the study is Nepal. Similar to Kenya experience, tea plantations were first established in the early 19th century during the British colonial era. In fact, the colonization of India by the East India Company is responsible for the birth of the Nepalese tea industry. The British encouraged several tea plantations near the Darjeeling hill station. Within a few years, after it arrived in Darjeeling, hybrid tea bushes were introduced in numerous districts of Nepal, including Ilam, Taplejung, Panchthar, and Dhankuta. In 1863, the Ilam Tea Estate was founded in the highlands of Soktim, becoming the first tea state formed in Ilam.

Figure 3.24. Tea Plantation Areas in Nepal (ILO, 2019)

Budhhakaran Tea Estate, founded in 1959 in the Terai region's plains, was the first tea plantation in the private sector. In 1966, the Nepal Tea Development Corporation (NTDC) was founded by the government of Nepal after nearly a century without any support from the government. Ilam, Jhapa, Panchtar, Tehrathum, and Dhankuta were the five eastern districts designated as the *'Tea Zone'* by the Nepalese government in 1982 after seeing tea's potential as a profitable crop and export good. Since then,

the government has taken various initiatives to promote tea growers and processors (Shrestha, 2014).

Since its founding in 1863, tea production in the landlocked, least developed South Asian nation has been strongly tied to the fortunes of the Darjeeling tea plantations, located mere hours across the border in India. In contrast to the extensive gardens that gave wealth to the growers of the ‘champagne of teas’ in India, the Nepali tea plantations continued to be few in number and repute. Smallholders started cultivating tea in 1976, and they have since increased their production share to the point where, in 2016, they produced 41% of the total amount of tea. Despite its favorable growing environment and aspirations, Nepal remains a minor player in the global market, ranking 21st in production and 22nd in export volumes, with just 27.688 hectares planted for the crop (Mohan, 2018).

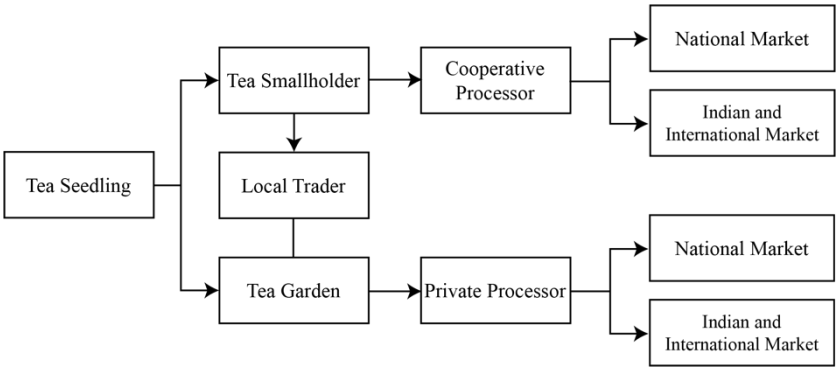


Figure 3.25. Tea Value Chain in Nepal (ILO, 2019)

The production network of Nepali tea is divided into two distinct segments: CTC and orthodox, which differ in terms of end markets, locations, and methods of production and organization. In the flat southern plains of the Jhapa district, where tea is processed using CTC techniques, 75% of Nepal's total tea production is farmed. The remaining portion is raised in the mountainous northeastern Ilam, Panchthar, and Dhankuta and processed using orthodox techniques. The CTC sector is dominated by estates, which produce 65% of the sector's output (Mohan, 2018). Due to its high market value, smallholder farmers are mostly inclined to produce orthodox tea (Shrestha, 2014).

%40 of Nepali CTC output is used in domestic markets, while the remaining is exported, with more than 90% of exports going to the neighboring country of India. Since approximately half of the nation's tea is sent to India, Nepal has the highest concentration of exports. The exported teas to India are mixed with Darjeeling tea, auctioned at high prices under the Darjeeling label, and re-exported overseas. In this network, the margin of Nepali actors is meager. A tiny part of the Nepali production, less than 3%, is sold directly to the export market at high prices. These exports generally aim at countries such as Germany and the USA, which demand food safety, sustainability certification, and high-quality tea. Therefore, in the orthodox segment, almost all tea is grown by smallholder farmers and exported, primarily to India but also to Russia, Germany, and the United States (Mohan, 2018).

Like many least developed and low-income countries in the tea industry, Nepal has struggled to improve the caliber and reputation of its tea exports. Tea factories have long sought alternate export markets to lessen their reliance on low-value exports to India. However, since a shipment to Germany was turned down in the 1990s due to pesticide residues that exceed the allowable limit, the nation has had to work against a bad reputation for disregarding food safety regulations. Both government actors and development organizations have acknowledged the significant development potential of the orthodox tea production network, and they launched programs to seek upgrading in the orthodox segment of the tea production. Adopting a domestic code of conduct and the organic standard has enhanced farmer capacity and practices, bringing production in line with international food safety requirements, signaling conformity, and facilitating access to foreign markets. Both programs were implemented with technical support, which was mostly given by cooperatives that held training sessions with the nongovernmental organization (NGO) and factory support. Manufacturing facilities liaised with cooperatives, which provided a venue for cooperative members to exchange knowledge and inform farmers about rules and materials (Mohan, 2018).

Two different actors in Nepal carry out tea production. The first one is the smallholder farmers, who grow tea on their own property, typically in a small

plantation area of up to 10-12 decares. At the bottom of the value chain, smallholder farmers produce fresh tea leaves, one of the most vital factors in Orthodox tea production in Nepal. Smallholders can sometimes employ workers in their gardens (Shrestha, 2014).

The larger producers, known as tea estates, are the second actor group that cultivates tea. Tea estates are vital stakeholders in the tea industry of Nepal. They generally have more significant plantation areas and often hire people to harvest and maintain tea bushes for mass production. Manufacturers hold several orthodox tea estates in Nepal. Most tea estates have their own processing facilities where they can process fresh tea leaves. Also, several estates procure orthodox tea from smallholder farmers and process it in their factories (Shrestha, 2014).

After plucking of tea, all teas are collected together in so-called collection centers, usually run by local brokers. Alongside collection centers, there are also cooperatives that are established by local farmers, in which the green leaves are collected. After the collection, the leaves are transported to the factories for processing. At this point, the tea leaves supplied to the factory are owned by the factory (Shrestha, 2014).

In the processing stage, the fresh tea leaves are subjected to value-adding phases such as withering, rolling, drying, grading, and bulk packaging. The related factories mainly undertake the packaging process. The factories mostly pack in bulk for domestic wholesale and international exports. Other factories also prepare consumer packaging, such as tea bags, aluminum foil, and tea chests, and sell it under their brand in local markets. The related factories have their own processing and packaging facilities (Shrestha, 2014).

After the tea has been bulk packed, the factory owner sends invoice samples to prospective buyers, usually tea packaging firms or overseas purchasers, and negotiates the sale. Tea packaging firms buy processed tea straight from factories, complete the blending and packaging processes, put up their own brand label, and sell it to wholesalers or retailers in the market. Additionally, buying agents are

involved in the process. These agents mediate between factories and foreign buyers and consequently receive a portion of the sales profits (Shrestha, 2014).

Some distributors and dealers sell the finished tea product under several brand names for the various individual tea firms. The products are marketed predominantly in the domestic market, and the distribution routes are mainly concentrated in urban areas, including the Kathmandu Valley, Pokhara, and other significant cities. In the domestic market, distributors and wholesalers purchase tea from some tea firms that have their own distribution networks and sell it under their brand names (Shrestha, 2014).

In order to get more value-added from the tea production, Nepal enhance the quality of its tea through the certification schemes it adopted and training programs for its farmers. However, the country has chosen to upgrade the quality of only the small part of its supply (Mohan, 2018).

Consequently, these three countries have different dynamics in terms of tea production, consumption, trade and upgrading strategies. Accordingly, while Kenya is focused on bulk tea production and trade, Sri Lanka is concentrated on high specialty tea production. In relation to this, Sri Lanka has higher export value than Kenya, which is the largest tea producers in the world. On the other hand, tea sector in Nepal is not big like in the other two countries. However, there has been upgrading activities, albeit in low level, through certification schemes in the sector. The striking point here is the fact that all of these three countries use certification schemes and standards as a way of upgrading. Therefore, it is seen that sustainability and third-party certification programs have been adopted in tea industry worldwide.

3.4 Summary of the Chapter

This section examines the tea industry's formation on a global scale, current trends in the sector, and different tea production networks over three tea-producing countries. The main reason for this review is to see where the Turkish tea industry,

which is the subject of the thesis, is positioned on a global scale and to make inferences about it. In addition, the tea-producing country examples discussed in the last part of the chapter add depth to the study by exploring their different strategies in value production.

Today, the tea industry is a significant source of export revenue, with global tea output exceeding $17 billion per year and the international tea trade being worth $9.5 billion. Around 13 million people are employed in the industry, most of whom are smallholder producers. Most tea is produced by smallholder farmers in China, Sri Lanka, and Kenya, where half of the world's production is carried out. Besides production, millions of people operate the processing, transporting, trading, and retailing. Specific agro-climate conditions, which are only available in tropical and sub-tropical regions, are needed to cultivate the plant. However, it can be grown in other areas that do not provide these conditions based on the plant's tolerance. Accordingly, tea is produced in around 50 countries, while 85% of the production is carried out in Asia, particularly China.

Along with China, India, Kenya, and Sri Lanka are also among the largest tea producer countries, and they have produced the most tea on average in the last 20 years. On the other hand, Turkey is the 5th country with the largest tea production volume. Kenya is the largest exporter of tea. Over the past years, global tea exports have grown by 5.1% annually to reach 2.1 million tonnes in 2020. This growth has been fueled by increasing shipments from Kenya, the world's largest exporter of black tea, as well as by strong annual growth in green tea exports of 2.3% as opposed to black tea exports of 0.1%.

Tea consumed per capita worldwide increased by 2.5%, with considerable increases in tea-producer countries over the last ten years. As a result of their growing and emerging economies, demand has been rising, with East Asia, Africa, Latin America, the Caribbean, and the near East leading the way. In contrast with these countries, tea consumption has been declining in more developed European markets and other developed nations. Moreover, population growth, urbanization, and rising earnings,

particularly in emerging and developing economies, have all contributed to the increasing consumption of tea.

Today, the Kenyan tea industry employs five million people directly and indirectly. Small-scale farmers in the country have been struggling with the global production networks of tea due to the limiting market entry barriers, particularly in high-end tea markets, including quality, food safety requirements, and consumer drive standards. Therefore, certification was put into place along with farmer training programs. Hence, Kenyan tea gained access to the premium bulk export sub-chain. On the other hand, Sri Lanka was among the significant tea exporters before the 1960s, and after the 1970s, its competitiveness and market share declined with the rising of other Asian and African countries. Consideringly, the export of Sri Lanka also fell, and the country could not compete with the other countries in terms of value. However, Ceylon tea of the country preserved its distinct reputation, and Sri Lanka maintained its position in global trade through high-quality and branded tea exports. A significant portion of Sri Lankan tea exports was transferred to the top of the high-quality bulk tea production network, which included farmer training, factory improvements, and government labeling of top Sri Lankan tea with the Lion Logo brand. As for Nepal, 40% of Nepali CTC output is used in domestic markets, while the remaining is exported, with more than 90% of exports going to the neighboring country of India. Since approximately half of the nation's tea is sent to India, Nepal has the highest concentration of exports. The exported teas to India are mixed with Darjeeling tea, auctioned at high prices under the Darjeeling label, and re-exported overseas. In this network, the margin of Nepali actors is meager. To get more value added from tea production, Nepal enhances the quality of its tea through the certification schemes it adopted and training programs for its farmers. However, the country has chosen to upgrade the quality of only a tiny part of its supply.

It is seen that the tea industry in these three explored tea-producer countries have different dynamics. However, this exploration indicates that the demand for sustainable products has also impacted tea production. Today, tea-producer countries use certification schemes to enhance their products' value and improve their products'

reliability regarding food security. Based on this exploration, it is concluded that these countries with different sectoral dynamics have used several upgrading strategies in the industry. However, sustainable and certificated production are these countries' most important upgrading strategies.

CHAPTER 4

TEA SECTOR IN TURKEY

There are different opinions about the time of history of tea production started in Anatolia lands. Although significant collective effort had been made with the New Republic in 1923, several unsuccessful attempts for tea plantations in the Ottoman Empire period were also made. However, before proceeding with the tea cultivation period, it is essential to mention how Anatolian lands met with tea.

Although there is no clear evidence on how tea was brought to the land, it is presumed that the Anatolian people knew tea at the end of the 16th century. This presumption is also supported by the famous Ottoman explorer Evliya Çelebi's impressions of Istanbul, which he indited in 1631. Along with his impression of life in İstanbul, he also mentioned the tea plant in his notes. Based on his notes, it can be concluded that in the 17th century, tea was known in Ottoman Empire, albeit in a narrow circle. Tea became more known over time, and people started establishing teahouses. In the last quarter of the 19th century and the first half of the 20th century, teahouses were quite popular, especially in Istanbul. At this period, there were no tea farming activities in Ottoman lands yet, and the tea demand, which was not that much then, was being met with import (Kılıç, 2014).

As for tea production during the Ottoman Empire, there are different opinions about the history of tea cultivation in the lands. According to Yurtoğlu (2018), the tea plantation was one of the many innovative ideas of the Tanzimat Period (1839-1876), which was a significant turning point for the transformation of the society in the Ottoman Empire. During this period, the Empire's economy wanted to enter foreign markets, and producing industrial plants within the country was an excellent strategy for this. Therefore, the tea plantation had considerable potential since it was a valuable and essential product in the world market at that time (İNAL, 2021). So, it

is believed that the first attempt at tea cultivation in the Ottoman Empire coincided with the Tanzimat Period. However, as much as Empire wanted to promote tea plantations, no significant progress was made since it did not attract the public enough (Yurtoğlu, 2018).

According to Ercisli (2012), the first introduction of tea to the Ottoman Empire was made in 1888 after Tanzimat Period. That year, seeds and nursery materials were brought from China, and the first tea plantation was established near Bursa city. Nevertheless, this attempt failed. After four years of this unsuccessful attempt, another introduction was made with tea from China again in 1892. However, it was also unsuccessful (Ercisli, 2012; Keskin, 1989). These attempts were also mentioned in a book published in 1891 called "*Coğrafyayi Sınai ve Ticaret*" by Prof. Dr. Besim Darkol. Even though Darkol could not state the exact date when the event unfolded, it is mentioned that tea samplings were brought to Bursa from China, and the plantation was not successful (Saklı, 2008).

As can be seen, the vast majority of the tea plantation attempts took place during the sultanate and caliphate of Abdulhamid II (Saklı, 2008). Consequently, the first archive document in the Ottoman Period about tea is Abdulhamid II's order to start the infrastructure works to cultivate tea plants on sample farms. Also, the report presented to him about the works carried out after his order was another archive document about tea. This report, called "*Çay Tarifnamesi*" is the first Ottoman Turkish language book about tea. After receiving it, Abdulhamit II ordered tea to be grown as a plant cultivated in the Ottoman Empire. However, just like the Bursa cases, attempts at tea cultivation in Istanbul also failed (Kılıç, 2014).

All of these unsuccessful attempts can be explained by this report that was presented to II. Abdülhamit about the methods of growing tea plantations. The report stated that tea plantations should be grown in light to moderate clay soil and fertile land. However, the tea plantation requires a rainy and humid climate. The reports also claimed that the tea could be grown in most Empire lands, including Erzurum, Sivas, Ankara, Bursa, Aydın, Adana, Aleppo, Syria, and around Istanbul. It is worth

mentioning that the report did not mention Rize, and these areas were not suitable for tea plantations. Therefore, in light of this report, tea plantation attempts failed during the Ottoman Era because all the chosen areas were unsuitable and did not have favorable climate conditions for tea growing (Saklı, 2008).

Consequently, even though tea production is relatively new in Turkey, it has a long history that dates back to the Ottoman Empire. In this chapter, the history of the tea sector, production and trade in Turkey will be narrated from the 18th century to this day. Following this introduction, an evaluation of the sector, and the Eastern Black Sea Region where tea production take place, will be covered by national and regional policy documents and studies.

After detailed insights about the introduction process of tea, its production, and achievements in Turkey will be given, the challenges faced by the actors in the tea sector will be discussed.

4.1 History of Tea Sector in Turkey

The Eastern Black Sea Region had a land structure unsuitable for agriculture and animal husbandry. Since there was minimal arable land due to the mountains that started to rise from the coast, agriculture was done on the relatively flat parts of the slopes. Also, due to the scarcity of pastures required for animal husbandry, animal herds could only be fed in the highlands. For this reason, families engaged in animal husbandry had to go to the highlands, and only a limited number of animals could be fed in the villages (Saklı, 2008).

With the conquest of Trabzon by Fatih Sultan Mehmet in 1461, the west of Rize also came under Ottoman rule, and the remaining part of Rize was annexed to the Ottoman lands by Prince Selim in 1509 (Keleş, 2013). After conquering the region, most of the population was exiled to Rumelia. In exchange for this population, many families were brought to the region (Pehlevan, 2008). Especially during the Trabzon Governorship of Yavuz Sultan Selim, Akkoyunlu Turkmens were heavily settled.

With these settlements, vacant land extensions towards the interior began to be used (Saklı, 2008).

During this period, Rize was a district of Trabzon Sanjak, and it was away from war zones, and no significant internal turmoil took place in the region. However, in the 18th century, revolts against the government and banditry began to be seen. These activities severely threatened the authority of the Empire in the region. Therefore, by the end of the 19th century, some revisions were made to the Ottoman administrative organization. Trabzon province was made into a province consisting of Trabzon Merkez, Canik, Gümüşhane, and Lazistan sanjaks. With this revision, Rize district became a part of Trabzon Merkez Sanjak. However, after the Ottoman-Russian War, which took place in 1877-1878, the Treaty of Berlin was signed and Batumi, the center of Lazistan Sanjak, was left to the Russians, and Rize became a part of Lazistan and became the center of the Sanjak (Keleş, 2013).

The Ottoman Empire granted the right of navigation to the Russians in 1774, Austria in 1784, England in 1799, and France in 1802 for maritime trade in the Black Sea. Significantly since 1829, when the Black Sea ports were opened to foreign ships, the interest of Westerners in Trabzon increased. With the ports opening to foreign ships, Tabriz and Iran trade started to be carried out through the Trabzon-Erzurum route. The growing concern of the British to protect their commercial interests led to the opening of a British consulate in Trabzon in 1830. Because Trabzon had become an international trade center in this way, the number of countries that wanted to open a consulate here had increased. By 1868, 9 consulates belonging to the states of Russia, France, Italy, Austria, Prussia, Greece, Belgium, Iran, and Great Britain were operating in Trabzon (Saklı, 2008).

According to the Salname dated 1869, 29 to 40 thousand thin white linen cloth balls were produced in Rize, 500 balls of coarse linen cloth were produced in Ikizdere, and 1000 balls of cross-stitch cloth were produced in Çayeli, and wool shawls were woven in Karadere. Rize's thin linen cloth was sent to Trabzon, Istanbul, and Arabia. Also, knives, sharpeners, and rollers for kayaks were being manufactured and sold

in Rize. Along with these, silk was being manufactured in the Pazar district and sent to Rize and Istanbul. In Hamshin, fishing nets, linen cloth, socks, and shawls were woven, and wood was made of walnut and alder. In Arhavi, coppersmithing and jewelry arts were being performed (Saklı, 2008). However, the essential production activity in the region was weaving linen cloth made of hemp. Sometimes, 100-200 thousand tons of weaving could be exported to Europe and Arabia per year through the large merchants in the region (Aktan, 1946, as cited in Saklı, 2008).

Since trade was carried out by sea, the ports in the region were lively and constantly visited by various domestic and foreign ships. According to the Salname dated 1905, 192 large and 1613 small Ottoman cruise ships, 73 Austrian, 35 Russian, and one British and one Greek steamer visited the Port of Rize in one year. According to the British Consular reports of 1907, there was only 15 km of open roads for car traffic from Trabzon to Akçaabat, while there was no road to the east, and this road was planned to be built. Since transportation to the Eastern Black Sea was mainly carried out by sea until these dates, it was necessary and natural that the sea route operated effectively (Saklı, 2008).

During the second half of the 19th century, many reconstruction activities were carried out in the region. Most of the arch bridges and mosques, the most important historical monuments, were built during this period. All of these productions, trade, and reconstruction activities show that before World War I, Eastern Black Sea Region, which had difficult conditions for living, was relatively good in economic and social senses (Saklı, 2008).

Although this was the situation before the war, a different period began with the outbreak of World War I. In the first months of the war, Rize was subjected to Russian bombardment and assault. After the assault, it was occupied by the Russians in 1916 and remained under occupation for two years until Bolshevik Revolution. As a result of the Bolshevik Revolution in Russia in 1917, Russians had to withdraw from the region, and Rize became liberated from occupation in 1918 (Pehlevan, 2008).

When the population was less than in the following periods, the region's people tried to make a living by planting corn, beans, and black cabbage. After the population increased and the lands were divided among the brothers and gradually decreased, living in the Eastern Black Sea Region became difficult. It has become obligatory for men to go abroad to earn money and return to the region to provide for their families (Saklı, 2008).

Tea growing attempts did not end with these unsuccessful attempts. In 1912, Hulusi Karadeniz, President of Rize Chamber of Agriculture, made the first individual attempt in the late Ottoman Empire for tea farming. Karadeniz planted the tea seeds he brought from Batumi in his garden in Rize because of the familiarities with the climate conditions of both cities. Nevertheless, unfortunately, due to World War I starting, he had to leave Rize and could not continue growing tea plants (Alikılıç, 2016; Genç, 2010).

After all of the state-led and individual unsuccessful attempts at tea growing, significant progress had been made after Russian Revolution in 1917. With the Russian Revolution, Russia had to withdraw from the war, which led Kars, Ardahan, Artvin, Rize, and Batum to be liberated from occupation. After the region's liberation, Ali Rıza Erten from Halkali Agriculture School from Istanbul and his team were assigned to the South Caucasus by the Ministry of Agriculture in 1918 to examine the agricultural structure and economic situation of Batumi and the region. Ali Rıza Erten observed that temperate-zone plants such as tangerine, lemon, orange, bamboo, and tea were grown in the coastal area of the Caucasus. He reported the meteorological structure of the region with the soil and characteristic of the region. Erten also had the meteorological data about Rize, which the Russians had compiled during the occupation. After determining the similarity of the climates and soil characteristics between Batumi and the Black Sea Region, he concluded that the products grown in Batumi could also be produced in the Black Sea region. Afterward, he compiled a report and submitted it to the Ministry of Agriculture (Alikılıç, 2016; Saklı, 2008).

This report was the most comprehensive and scientific work ever made about tea farming at that time. It consisted of information about the stages of planting, growing, transportation, and marketing of the tea and the botanic attributions of the plant (Alikılıç, 2016). Erten also pointed out the economic value of tea imports in his report and suggested that tea cultivation be carried out in the Black Sea Region (Kaçar 1986, as cited in Keskin, 1989). The report was also of great importance in mentioning the role that tea will play in Turkey's economy (Alikılıç, 2016).

To conclude, Erten and his team's report had become a starting point for tea farming practices in the Republican era. This report made Ali Rıza Erten the most influential person in the agricultural adventure of tea in the Ottoman period (Alikılıç, 2016; Saklı, 2008).

As mentioned in the previous chapter, Rize was in a poor state regarding job opportunities and population when the Republic was founded. When the gates of Russia were closed with the October 1917 revolution, the people of the Black Sea had become deprived of a vital job resource, and this caused problems in the region. Most people had to migrate to different cities in the hope of finding a job. Those who could handle shovels, trowels, and adzes or could do jobs such as bakery and pastry were dispersed to various parts of the country as skilled workers. Men, who were unskilled workers, migrated to work as coal miners in Zonguldak, fishermen in the Bosphorus, and construction workers and craftsmen in Ankara and other big cities (Genç, 2010). In addition, the economic depression caused by WWI, the collapse of the Ottoman Empire, and the state authority's weakness gave rise to another problem for the region. Some people who took advantage of this state started banditry activities and extortion in the Eastern Black Sea Region (Alikılıç, 2016; Ercisli, 2012). These incidents that caused chaos and insecurity in the region required state intervention. After Erten's report on Rize's suitability to grow tea, this was another critical breaking point for the crossroad between Rize and tea.

In April 1921, a committee was established by representatives from all departments to take precautions to bring peace and order to Rize. The people had to work in other

parts of the country due to unemployment and poverty. However, according to the land situation, the population was too high, and only ¼ of the land was suitable for cultivation. These led to the necessity of creating job areas in the region. Therefore, Zihni Derin, on behalf of the Ministry of Economy, emphasized that creating job employment and improving working environments would bring the desired peace and security to Rize. He also argued that the Batumi model, which was reported by Ali Rıza Erten before, could be applied to Rize since both cities had similar climatic characteristics (Alikılıç, 2016; Keskin, 1989).

The Turkish government seriously considered Derin's suggestion since the region was in a severe economic crisis (Ercisli, 2012). After the negotiations with the Government, Zihni Derin was assigned to the nursery works of a 15-decare land in a region belonging to the treasury, formerly known as Garal Mountain. He went to Rize in 1923 as General Director of Agriculture to carry out research and investigations on-site and to implement the breeding nursery project that was decided to be established (Alikılıç, 2016; Yurtoğlu, 2018).

In 1924, Zihni Derin sent İbrahim, an agricultural officer in Rize, to Batumi. He instructed him to make the necessary examinations about tea, tangerine, lemon, and orange, buy the seeds and saplings needed for the nursery, and bring them to Rize. After sending İbrahim, he also went to Batumi himself (Saklı, 2008). In Batumi, he researched the tea gardens, the tea factory, and the Astropical Plants Research Station established by Russians. Then, he returned to Rize with tea seeds, saplings, various fruit varieties, and a Russian gardener. Derin planted the seeds and saplings he brought from Batumi with the help of a Russian gardener in the area created by the expropriation of 70-80 acres of derelict land left by the Greeks in 1924. After that, some of the tea saplings obtained from the seeds that were brought from Batumi were distributed to the public, but the attempt was unsuccessful since the people of Rize were reluctant to give up their usual corn production due to their limited lands and financial difficulties. Tea production in that period was seen as an adventure with no end by the public (Yurtoğlu, 2018; Zihnioğlu, 1998).

While carrying out this work, Derin returned to Ankara and started preparing a draft law to carry out the work within a legal framework. After preparing the draft law, he presented it to the parliament. With the support of the Rize deputies of the period, Esad and Ekrem Bey, Law No. 407 ‘Law on Growing Hazelnut, Orange, Lemon, Tangerine and Tea in the Borçka District and Rize Province’ was enacted on February 2, 1924. With this law, incentives such as expert assistance for tea plantation, cheap saplings, and no tax for ten years on the land that would be used for agriculture were introduced (Alikılıç, 2016; Saklı, 2008). The law also included subjects like making the bushes and alder land suitable for planting, exemption from tax for ten years for a successful planting process within three years, and a one-time incentive of 10 liras per acre. Besides, 10 liras per acre would be paid per year if the process was not completed within three years (Kılıç, 2014)

After enacting Law No. 407, Zihni Derin, General Inspector of Agriculture, went to Rize again in April 1924. He completed the necessary expropriation works on the Garal Mountain hill for the nursery where today's Ziraat Tea Garden is located. After that, he went to Batumi again on July 1, 1924 (Saklı, 2008, 2019).

Zihni Derin was not only interested in the technical details of tea cultivation in Rize. He was also interested in the organization of the cultivation. He made an excellent effort for the Rize Nursery. He planted the saplings and seeds he brought from Batumi himself. Besides, he ordered seeds from Batumi to be sent later. After planting these seeds in the nursery, 500.000 tea saplings were grown, and most were planned to be distributed to the people in Rize (Saklı, 2008). Nevertheless, both distribution of these saplings and then taking steps toward the establishment of tea gardens by the public failed, and this caused the tea farming process in Rize to progress slowly until 1937 (Yurtoğlu, 2018). So, even with Law No. 407 and the incentives it provided, the aim to grow tea could not be reached at the desired level since there was no time and money to be devoted to tea farming, which required large-scale government assistance (Kılıç, 2014).

Even if the desired goals were not achieved, these attempts were of great importance for the history of tea in Turkey. Zihni Derin's efforts showed that it is possible to grow tea in Rize. Therefore, the second step was to take tea cultivation into practice after the institutional work of Prof. Dr. Ali Rıza Erten (Zihnioğlu, 1998).

There was no remarkable improvement in tea farming since 1924. After the Great Depression in 1929, agricultural policies shifted, and tea farming in Turkey was reconsidered within the government's self-sufficiency policy. In this context, three subjects became prominent. Firstly, agricultural products needed to be diversified. Secondly, to meet domestic demand, products that were not raised in the country needed to be cultivated. Lastly, industrial agricultural products would be given weight (Hatipoğlu, 1933, as cited in İnal, 2021). Tea farming was coherent with these agricultural policies.

One of the most important events of this period was the visit of İsmet İnönü, who was the Prime Minister at that time, to Rize. During his visit, the people of Rize expressed their willingness to cultivate tea in the region. After that, İsmet İnönü returned to Ankara and wanted The Ministry of Agriculture to pay attention to this subject. Upon this, Muhlis Erkmen, Minister of Agriculture, went to Rize and started to observe the condition. After seeing the tea plants in the nursery that Zihni Derin established, he concluded about tea farming in Rize. Later, he sent a technical committee of experts from the Faculty of Agriculture and Ministry of Agriculture to Rize for further examination (Zihnioğlu, 1998).

This visit from the technical committee was another critical turning point for tea farming in Rize. Because after Ali Rıza Erten and Zihni Derin, a member of this committee, Şevket Raşit Hatipoğlu, became another vital actor in the tea industry in Black Sea Region. This visit to Rize to observe the economic development and improvement of the region in 1935 led to a reconsideration of tea farming as a local and special economic issue in Rize (İnal, 2021). On his return to Ankara, Hatipoğlu discussed growing tea in Turkey, arguing that it would be beneficial to establish tea

gardens in this region and necessary facilities to turn the tea leaves obtained from tea gardens into dry tea (Zihnioğlu, 1998).

After carefully examining Ali Rıza Erten's report titled "Investigation of Agriculture in Northern Anatolia and the Caucasus" and seeing the similarities between the land and soil formation of the Batumi climate and Rize climate, Hatipoğlu became one of the advocates of growing tea in Rize, as in the Batumi example. Şevket Raşit Hatipoğlu then found out the tea consumption in Turkey, from which countries these teas come, the amount of tea consumed per capita at that time, and the data on total tea consumption. After this work, he wrote a book called "Tea Economy in Turkey." In this book, by recording his thoughts and recommendations on achieving tea cultivation, he drew the first plan and project for the Turkish tea business (Zihnioğlu, 1998).

In his book, Hatipoğlu pointed out the steps that need to be taken regarding the self-sufficiency policy for tea farming. He believed that the first step was to educate villagers about the principles and practices of tea cultivation through lectures and hands-on training. After this step, another essential subject was sending young people to Russia for them to specialize in the matter. The report also mentioned that organizations would be set up to coordinate interactions between central authorities and local institutions, introduce exemplary tea gardens to the public, and launch workshops for production (Hatipoğlu, 1939, as cited in İnal, 2021).

Later, it was decided to establish an active tea organization. The first person who came to mind for it was Zihni Derin (Zihnioğlu, 1998), a leading actor in the tea farming process Rize since the beginning. So, he was contacted once again while he was working as an agricultural consultant in Edirne. Later, he was assigned to coordinate the tea organization in Rize (Önçırak, 2019). Thus, the solution to many problems, such as ensuring the coordination between Ankara and Rize and supplying the personnel and facilities needed by the new organization, would be facilitated (Zihnioğlu, 1998).

The Organization of the Directorate of Tea and Nurseries established in Rize, started initiatives to develop an active system that would work in the region. Firstly, Rize and the surrounding villages were divided into six areas, and a technician was assigned to each part (Zihnioğlu, 1998). After conducting a regional study, the most suitable lands were selected for tea farming. Hundreds of thousands of saplings were distributed to the villagers. Twenty tons of seeds in 1937, 30 tons in 1939, and 20 tons in 1940 were purchased from the Soviet Union. Also, the Ministry of Agriculture opened a tea workshop in Rize in 1938, and tea leaves in small quantities were processed in this workshop for the first time. In 1938, 135 kilograms of tea leaves were produced for 81 liras, and 30 kilograms of dry tea obtained by primitive means was sent to Ankara (Alikılıç, 2016; Yurtoğlu, 2018). In 1940, the tea garden areas increased by over 12.000 decares, the number of nurseries reached 19, and the nursery area reached 5.945 decares. The amount allocated to the enterprise reached 166.640 liras, and the expenditure required for the staff reached 148,560 liras (as cited in Yurtoğlu, 2018).

Meanwhile, as mentioned in Hatipoğlu's book, young people were being sent to Russia to specialize in tea. Therefore, 10.000 thousand liras were allocated from the budget of the Ministry of Agriculture in 1938 for these people. This figure was reduced to 5.000 liras in 1939 (Yurtoğlu, 2018). As a result of these developments, the tea farming project in Rize had become more conscious and programmed. After that, in the second half of the 1930s, production in Turkey accelerated, and serious work was carried out during this period (Alikılıç, 2016; Önçırak, 2019).

These positive developments in the tea sector were interrupted by the outbreak of the Second World War in the late 1930s. Due to the war that broke out with Hitler's attack on Poland on September 1, 1939, the preparations for mobilization in Turkey had adverse effects on the tea program. The workforce in the region had decreased significantly because of the conscription. In addition, due to the seizure of grain products by the state, corn price, which was three kurus before the war, rose to 150-200 kurus. In this period, the corn grown in the region was not enough to meet the

demand. Also, the possibility of finding corn from the other regions decreased, and the danger of famine and starvation arose in Rize during the war (Saklı, 2008).

The tea organization, which was forced to solve this problem, was trying to seize opportunities. At that time, corn was produced in Samsun Gelemen State Farm and transferred to the Turkish Grain Board for 18 kurus per kilo. In the autumn of 1940, the Tea Organization, which wanted to solve the famine problem of Rize and revive the tea industry in the region, came up with the idea of transferring the corn produced in Samsun to the tea organization at the same price. In this way, Tea Organization would give each villager 100 kilos of corn to establish a one-acre tea garden. The Ministry accepted this idea as a result of Zihni Derin's efforts in Ankara. After announcing this to the public, the region's people applied to the organization, signed their agreements, and started turning their lands into tea gardens. Thus, the business of establishing tea gardens, which had stalled under wartime conditions, was revived (Saklı, 2008; Zihnioğlu, 1998).

While all these developments were taking place, efforts to enact Tea Law continued in the background. Tea Law No. 3788, which was envisaged to be enacted in the 'Five-Year Program', was submitted to the Grand National Assembly of Turkey on 07.07.1939. After a lengthy consultation, it was accepted by the Grand National Assembly of Turkey on March 27, 1940. It was the first law enacted explicitly for tea in Turkey (Saklı, 2019). The law involved the introduction of state incentives and a plan for meeting domestic demand with domestic suppliers to improve the life quality and economic welfare of people in the region through tea farming (İnal, 2021). Based on this law, 15 km inland from the coast from the Trabzon-Araklı stream to the coast of the USSR (Georgia) was determined as the tea farming area according to ecological principles. The law regulated the purchase of the grown tea by the State, the tea procession process in the tea factories to be established by the State Agricultural Enterprises Institution (SAEI), the establishment of new tea gardens, and incentives to be given to producers. Mainly Article 103 assured the tea producers since it gave producers a purchase guarantee by the State. These advantages played an excellent role for the producers in establishing tea gardens.

The conveniences provided by the law to producers were not limited to this (Genç, 2010). An area of 30 thousand decares was allocated for tea agriculture, and Ziraat Bank began to provide 25 liras loan to the producer for five years without interest. With the same decree, tea cultivation was allowed in Hopa, Sürmene, and Of in 1940 (Alikılıç, 2016; Genç, 2010). With this legal basis and important planning, tea agriculture first spread to the coastal areas of Rize center, Derepazarı, İyidere, Gündoğdu, and Çayeli. Between 1939-1942, the amount of tea areas established increased to 14.000 decares (Saklı, 2008).

Along with Tea Law, as a necessity of war conditions, the government monopolized the purchase, sale, and distribution of coffee and tea with Law No. 4223, dated May 20, 1942 (Yurtoğlu, 2018). With the enacted law, the import of coffee and tea for consumption was prohibited, and the processing and drying of fresh tea leaves and the purchase of the leaves for this purpose in Turkey were taken under the State's monopoly, and SAEI became the authorized institution for this (Genç, 2010). With this law, it was decided that the retail sale price of tea would be the same all over the country, and the General Directorate of Monopoly would determine this price. Also, it had been stated that those who did not have the legal authority to produce, process, sell and bring fresh tea leaves into Turkey would be subject to the provisions of Law No. 1918, 'Law on the Prohibition and Tracking of Smuggling' (Çay Borsası, 2013 as cited in Tufanoğlu, 2017).

One of the most important reasons for establishing a monopoly on tea is that the State, which sought resources for itself due to WWII, wanted to provide income by heavily pricing tea through a tax channel. Through the marketing channels of tea regulated by law, the market shares of wholesalers, semi-wholesalers, brokers, and intermediaries would be left to the State (Genç, 2010).

At the end of 1943, 7.000 thousand farmers, more than one-third of the population, participated in tea production in the tea gardens established in Rize. The long-term and low-interest loans provided by the Ministry of Agriculture to these producers effectively increased the number of tea producers. These developments also enabled

the rapid expansion of tea farming areas, and the total area of tea gardens approached 20 thousand decares. In addition, there was a tremendous increase in the amount of tea produced. While 7 tons of tea was produced the previous year, this amount increased by nearly 150% and reached 17 tons. During this time, the Administration of Monopolies sold the tea brought from foreign countries for 16.50 liras and put high-cost Rize tea mixed with imported tea on the market (Yurtoğlu, 2018).

There were also administrative changes during this period. The Tea Organization, a single directorate within the Ministry of Agriculture, was divided into the 'Tea and Nurseries Directorate' and the 'Factories Directorate' at the end of 1943. These two organizations worked on developing tea agriculture and technique and technology in the fabrication process in the region. Thus, Agricultural Organization became responsible for the tea regions, and the State Agricultural Affairs Institution became accountable for the factories and workshops (Kılıç, 2014).

During this period, the ever-expanding tea farming areas and the increase in the product from year to year necessitated the establishment of large factories that exceeded the capacity of the existing workshops. Then, the State Agricultural Affairs Institution laid the foundation of the first tea factory on June 16, 1946. Although the factory's machinery was ordered from the British Brassert company in 1940, the machinery could only be received in 1947 due to WWII. The first modern tea factory was put into operation with a ceremony in the Fener District of Rize in 1947 with 60 tons/day capacity (Önçırak, 2019).

At the end of this period, tea farming had settled entirely in the region. Also, other people from the surrounding provinces of Rize started to ask for tea plants in their territories (Kılıç, 2014).

By Law No. 3788, the work on establishing 30,000 decare tea gardens planned by the Ministry of Agriculture was completed in 1948. With the establishment of these tea gardens that would provide a livelihood for 11.650 families in 159 villages of Rize, the Ministry of Agriculture became responsible for the production and purchasing control process, the State Agricultural Enterprises Agency became

responsible for the fabrication process, the Ministry of Monopoly became responsible for the purchasing process, and the Agricultural Bank became responsible for credit works. Because of so many institutions' involvement, the tea industry could not be carried out regularly, and manufacturers had increased their complaints. Then, according to Law No. 5433, 'General Directorate of State Production Farms Duties and Establishment Law' dated June 7, 1949, the State Agricultural Enterprises Institution was liquidated by being included in the "State Production Farms" structure. Therefore, Rize Tea Factory, which is affiliated with the State Agricultural Enterprises Agency, was transferred to the General Directorate of Monopoly, and Asım Zihnioğlu, who was working in the factory, was assigned to the position of factory manager on April 19, 1950 (Yurtoğlu, 2018). Even though most of the tea activities were transferred to the General Directorate of Monopoly, issues concerning team farming areas were handled by the Ministry of Agriculture's provincial organization (Saklı, 2019).

After establishing the first modern tea factory, a new era started for the tea sector in Black Sea Region, particularly in Rize. With the establishment of the factory, the people of Rize who were producing tea became workers in the labor market (İnal, 2021). In the 1950 elections, Demokrat Parti, which was giving weight to the rural population and family enterprises (Bellér-Hann & Hann, 2003), became the ruling party instead of Cumhuriyet Halk Partisi. Consequently, tea-agriculture industry policies continued to be applied the same way (Salkaya, 1952, as cited in İnal, 2021). Also, the State had the resources to make the necessary investments for the developing tea industry during this period. Therewithal, it established factories to process the tea leaves grown by the region's producers and trained the workforce necessary for the operation of these factories (Bellér-Hann & Hann, 2003). By 1950, tea manufacturing technology had transformed from workshop to factory production, and tea processing techniques had been thoroughly learned and implemented. With Turkey's rapidly growing tea consumption, it became necessary to expand tea gardens to ensure that production could meet domestic consumption (Saklı, 2019).

The growing demand for tea farming led the Grand National Assembly of Turkey to adopt Law No. 5748, 'Amending Some Articles of the Law on Tea' on February 27, 1951, regarding the expansion of tea agriculture, which became the primary source of livelihood for the people in a rough land like Rize in this period, and the granting of wider opportunities to those who would establish a new tea garden. This law aimed to manage the country's natural resources in the region into a valuable production issue by increasing tea farming areas from 30 thousand decares to 65 thousand decares (Yurtoğlu, 2018). The Council of Ministers was authorized to expand tea farming areas under Law No. 6133, enacted on July 10, 1953 (Saklı, 2019).

In the following years, tea started to be grown as a valuable agricultural product in Rize, and the hierarchically structured poor society of the region underwent a remarkable transformation (Bellér-Hann & Hann, 2003). Between 1950-1960, tea farmers received more loans, and ten more tea factories were established in Rize. In this period, other consumer goods were determining the value of tea, and the state was paying relatively high for green tea. Tea leaves were called 'green gold' since tea was synonymous with wealth with its high value. This also led to more satisfied villagers with the income earned from tea gardens, and interest in tea farming increased among people of the region (as cited in İnal, 2021). The Council of Ministers' Decree 4/3840, dated September 6, 1955, authorized the establishment of teahouses in Giresun Center, Bulancak, Keşap, Tirebolu, and Görele 15 kilometers inland from the coast and up to 500 meters high (Saklı, 2019). With Law No. 6754 dated 1956, it was agreed to give credits of 350 liras per decare, up to a maximum of 35 million liras (for 100,000 decares), to those who will establish a new tea garden (Keskin, 1989). Through the Decree 4/9290, dated July 22, 1957, the establishment of tea houses in the center of Ordu, Perşembe, and Fatsa was made possible (Saklı, 2019). Therefore, more people had drawn to the job, and the number of tea-producing villagers climbed from nearly 12 thousand to almost 64 thousand between 1950-1960. Therewithal, tea farming areas increased more than five times, reaching nearly

135 thousand decares, and dry tea production increased almost thirty-fold and reached 5.815 tons by 1960 (Keskin, 1989 as cited in İnal, 2021).

Despite these numbers, the production did not quite reach the desired level. However, the success of tea production in this period was one of the most notable agricultural achievements of the Republic. As a result of long-term efforts to improve the life quality of the people of Rize by creating an income source, the living conditions in the region significantly improved. Besides this achievement, tea became the most consumed beverage in Turkey, and beginning to be called the 'national beverage' was the second significant success in tea farming (Saklı, 2018). This was thriving progress since tea was associated with wealth not long ago before this period. Between 1950-1960, tea became available to all segments of society at reasonable prices (İnal, 2021). Particularly efforts of the General Directorate of Monopoly to distribute tea to all provinces of Turkey played a significant role in this (Saklı, 2018).

After Law No. 6754, adopted in 1956, no other law was passed on expanding tea production areas. In the following years, tea production areas were expanded with the Decrees of the Council of Ministers following Article 2 of this law (Keskin, 1989). In this regard, tea cultivation has become well established in the Eastern Black Sea Region, and tea production, which was previously balanced with imports, has become able to meet the country's consumption (Keskin, 1989 as cited in Genç, 2010).

In the first fifteen years of tea production in the region, tea was grown with appropriate methods under the supervision of agricultural technicians in lands suitable for cultivation. However, in the following years, technical control decreased, and in line with this, the number of licensed and unlicensed tea gardens increased (Kalender, 1976, as cited in Keskin, 1989). Against the uncontrolled and unauthorized growth in tea gardens, tea production areas were restricted for the first time in 1960. The production area of 235.000 decares, which was decided to be established earlier, was reduced to 200.000 decares (Keskin, 1989). The uncontrolled growth of

unauthorized tea gardens was not the only problem that emerged in this period. The picking standard was increased from 2.5 leaves to 3.5 leaves. Unfortunately, this practice irreparably deteriorated the quality of Turkish tea (Saklı, 2008).

After 1963, tea agriculture accounted for 80-90% of the economy of the Eastern Black Sea region, and the foreign purchase of tea was discontinued (Keskin, 1989, as cited in Genç, 2010). After tea production in Turkey finally reached a self-sufficient level, the government stopped importing tea from other tea-producing countries in 1965 (Ercisli, 2012), and Turkey started to export tea to other countries. Along with the increasing demand for tea, the tea fields continue to expand during this period. By Decree 6/6578, dated June 13, 1966, some villages of Maçka were also granted permission to establish tea houses. Meanwhile, 65 thousand decares of unregistered tea farms were approved for registration, bringing the total area of tea cultivation in the region to 265 thousand decares by Decree No. 6/9603, dated February 3, 1968 (Saklı, 2019).

The fact that tea has such a large share in the regional economy shows that the region's agriculture is based on a single-product structure. While the state's support policies have increased the number of tea fields, the higher price of old tea leaves compared to other agricultural products has also led manufacturers to focus on tea cultivation (Keskin, 1989, as cited in Genç, 2010).

Tea agriculture and industrial activities in Turkey were carried out by the State Agricultural Enterprises Institution between 1938 and 1948 and by the cooperations of the General Directorate of Monopoly and the Ministry of Agriculture between 1949 and 1973. To increase the economic and social efficiency of tea agriculture and industry, Tea Institution Law No. 1497 was enacted in 1971 and became a significant turning point in the historical development of tea agriculture. While the Ministry of Agriculture and the General Directorate of Monopoly were in charge of tea production and marketing until 1973, following the enactment of the law, all tea-related activities were transferred to the General Directorate of Tea Institution, which was established as an Economic State Institution (Başer, 2006; Önçırak, 2019).

Through this law, an economic state enterprise with a legal personality, autonomy in its operations, and limited capital responsibility were established. Consequently, tea farming areas expanded rapidly (Önçırak, 2019).

The main reason for the establishment of the Tea Institution was to eliminate the negative situation that arose as a result of different units being responsible for tea agriculture and the processing and marketing of tea. The Tea Institution had ensured the consolidation of powers previously held by various institutions in the tea industry into a single center. Furthermore, the activities of the General Directorate of Monopoly in other areas, such as tobacco and alcohol, prevented the focus on tea from being maintained. It is also vital that the concern about the composition of tea was explained by referring to the fact that until 1962, when domestic consumption could not be met, Turkish tea was mixed by 50% with Indian and Ceylon teas by the General Directorate of Monopoly. Therefore, it can be said that one of the reasons for establishing the Tea Institution was the expectation that it would be able to meet domestic demand with increased production capacity. Since the tea industry was managed by Rize during the new period, it experienced the fastest growth and production increases (Saklı, 2019).

With the passage of Law No. 2929 in 1983, the Tea Institution, which had begun operations in 1973, was transformed into a public economic institution known as the "General Directorate of Tea Enterprises" (Çaykur). Decree-Law No. 233 amended this law. From 1973 to 1984, Çaykur maintained a monopoly in developing tea agriculture in accordance with the country's agricultural policy, improving tea quality and processing according to technical principles, and producing products suitable for domestic and foreign market demands (Başer, 2006).

Tea Law No. 3092, enacted on December 4, 1984, was one of the most significant changes in the tea industry. The industry, which was a state monopoly until 1984, was deregulated with Tea Law No. 3092. According to the first article of the law, both natural and legal persons can establish and operate tea processing and packaging factories and purchase fresh tea leaves directly from producers. The determination

of tea production areas was left to the authority of the Council of Ministers under this law, which abolished the state monopoly in the tea sector. It became illegal to cultivate tea outside of the areas determined by the Council of Ministers, and anyone planning to establish a tea garden in a tea cultivation area had to obtain a license. Also, the provisions of Law Nos. 3788, 4223, and 6133 concerning tea were repealed by the third article of the same law. However, because of a lack of control, tea areas expanded in an unplanned and unscheduled manner (Başer, 2006; Önçırak, 2019).

By Law No. 3092, the private sector had become permitted to establish new factories through investment incentives, while Çaykur was no longer permitted to establish new factories. Between December 1984-September 1986, 42 investment incentives were distributed to the private sector. The total amount of these incentives was 74 billion, and their daily capacity was 4.802 tonnes (Saklı, 2008). Some entrepreneurs, believing that the private sector is profitable and will provide large profits in a short period, entered the tea sector with insufficient capital and without conducting a thorough feasibility study. In 1993, the number of private sector tea processing plants and factories rose to 312, with daily capacities of up to 11.000 tonnes. A large portion of the private sector did not have an adequate technical infrastructure. However, many producers and consumers had high hopes for the private sector's participation. Tea producers expected that by involving the private sector, they would be able to harvest their product more quickly, sell it more efficiently, and get paid for it more easily. On the other hand, tea consumers expected to be able to make different choices and drink better quality and cheaper tea due to market competition (Başer, 2006).

While Çaykur's daily capacity is 6.720 tons, the excess capacity created by the private sector drew attention. It is stated that when fresh tea was the most concentrated, the private sector only used 1/3 of it, while Çaykur used most of its capacity. This situation made it evident that the total fresh tea amount at the time would not be sufficient to feed this capacity. Consequently, many private sector firms that entered the tea industry with government assistance went bankrupt, including two large firms with numerous fresh tea processing factories. With every bankruptcy,

unpaid producer debts and factories were left behind. Particularly, the inadequate management capacity and raw materials in relation to the capacity created significantly affected the bankruptcies. Due to the absence of the 'Tea Exchange' in the country, like in the other tea-producing countries, fresh tea processing factories were forced to engage in packaging and marketing activities that required additional capital and qualified personnel. Firms that could not carry out these activities, which necessitate a great deal of effort and professionalism, were forced to cease their operations (Saklı, 2008).

When private sector firms went bankrupt, Çaykur continued its activities as before. Although the state monopoly on tea was abolished, with Law No. 3092, Çaykur was tasked with establishing new tea gardens and taking the necessary measures to increase the quality and efficiency of existing tea gardens. Çaykur continued its agriculture R&D within this framework by improving tea gardens through fertilization-prunin, soil analysis, and determining the most appropriate fertilizer type (Saklı, 2008).

In 1994, following Article 35 of Law No. 4046, 'Regulation of Privatization Practices and Amending Certain Laws and Decrees', the General Directorate of Tea Enterprises, which was transformed into a Public Economic Organization in 1982, was elevated to the status of State Economic Enterprise. All of these legal requirements and efforts to adapt to market conditions had no effect on Çaykur's status as a traditional state institution (Başer, 2006). Accordingly, while Çaykur operated like the private sector, it also continued to carry out the State's duties related to agricultural activities (Saklı, 2008). Using Çaykur as an intermediary institution in regional government employment policies has caused the institution to experience financial losses over the years (Başer, 2006).

The private sector brought some innovations to a few dimensions of the tea industry. Making the purchase closer to the producer, purchases without quota, and decreasing the density in the reception areas are among the innovations introduced in purchasing fresh tea. Also, the fiber extraction system, the continuous withering system, the

continuous fermentation system, and the introduction of the CTC-rotervan system to tea farming are the technological contributions of the private sector in the Turkish tea sector. Although the entrance of the private sector to sector had resulted in these mentioned benefits, the problem of the sector decreased; on the contrary, they increased (Saklı, 2008).

The majority of private firms operating in the sector since 1985 can only buy tea from the producers that Çaykur does not buy due to the purchasing quota. Under these conditions, the sectoral share of the private sector reached up to 40%. However, it is clear that this practice has not been successful in moving the tea industry forward and replacing the private sector with the public sector (Saklı, 2008).

Lastly, the developments took place after 2000s are of great importance for the sector. The first subject that need to be mentioned is the long-lasting studies on tea law. Accordingly, the tea law draft that was opened to public debate in 2009 is the first concrete draft that is taken into account in thesis. Through this draft law, the desire of the tea industrialists for the liberalization of tea farming and the establsihment of a tea exchange by reducing production costs is prominent. The draft law were critizied at that time for subjects that came to the fore in the draft. The critisized subjects were mainly the establishment of a tea exchange where tea prices are determined in market conditions, the withdrawal of Çaykur from the market by privatization, the precariousness of producers with contract production. After the backlash arising from this, the draft tea law were removed from the agenda (Genç, 2022).

The another notable development in this period is the transfer of Çaykur to Turkey Wealth Fund in 2017. The Wealth Fund was established on August 26, 2016 with the aim of bringing publicly owned assets into the economy, outsourcing, contributing to the diversity and depth of instruments in capital markets, contributing to the diversity and depth of instruments in capital markets, contributing to the diversity of financial markets and leaving a strong economy to future generations (Yüksel, 2020). However, the transfer of Çaykur to the Wealth Fund and the

subsequent profit and loss situation of the firm caused many discussions. Accoerdingly, the profit of Çaykur was 22.7 million TL in 2015, it was 82.1 million TL in 2016. However, the firm has been regularly making a loss since it was transferred to the fund (Bildircin, 2022).

Following this transfer, task of preparing tea law was given to Recep Tayyip Erdoğan University, which was determined as a tea specialization university. In the meantime, no detailed were shared with related stakeholders of tea sector. Finally, Tea Law Proposal was submitted to Grand National Assembly in July 2022 (Genç, 2022). As it is the most up-to-date draft law for tea, Tea Law Proposal (2022) has been evaluated within the scope of the thesis. Therefore, the proposal is referred several times in the following chapters.

4.2 Tea Sector in National and Local Plans

In the previous section, the development of tea sector in Turkey has been summarized. In this historical review, it has been stated that tea production in Turkey has been tried in different regions of the country but unsuccessfully, and the only place that has the necessary qualifications for the cultivation of the product is the Eastern Black Sea Region, located in the north-east of the country. Since one pillar of this thesis is the effect of agricultural production on regional development, it is important to understand the internal dynamics of the region and to reveal how the region and the tea sector are handled in the studies and policies developed at the national and local level.

The Eastern Black Sea Region, called as TR90 Region based on NUTS II classification, consists of all the five provinces where tea is produced in Turkey. The region cannot be handled as a homogenic structure since it has internal dynamics that differs within itself. The main reason underlying this is the differences between provinces and their development levels. This difference leads the differentiation of the welfare level of each province and the policies that need to be developed within

the scope of regional development. Therefore, the heterogenous structure of the region should be revealed. Consequently, the provinces and districts will be explored based on their development levels with reference to the SEGE studies in the first part of the section.

Additionally, how the Eastern Black Sea Region and the tea sector are handled in the studies and policies developed at the national and local level is essential before moving on to the chapter where the integration of the sector into global production networks for the purpose of regional development will be examined. In this context, a compilation will be made about the plans, programs and sectoral reports on tea industry and the region in the second part of this section.

4.2.1 Dynamics of Eastern Black Sea Region

The Socio-Economic Development Ranking Surveys (SEGE), which the Ministry of Industry and Technology regularly put on the route, will be taken as a basis in order to reveal the differentiated structures of the provinces and districts in the region. SEGE is an analysis study that objectively measures and compares the socio-economic development of NUTS-II regions, provinces and districts in Turkey to provide input to policy, strategy and public practices. In the studies, the development levels of NUTS-II regions, provinces and districts are analyzed with statistical techniques by using variables that measure socio-economic development, and the development ranking of these units is revealed.

TR90 region, which is the subject of the study, includes Gümüşhane province in addition to five tea producing provinces that are Rize, Trabzon, Artvin, Ordu, Giresun. However, Gümüşhane province is not included in this section considering that the province does not have any tea production activity. Consequently, Eastern Black Sea Region or TR90 will refer to the five tea producing provinces in the following chapters.

Figure 4.1. Tea Growing Region in Turkey

To begin with, the SEGE-2017 province-level study is used in this part of the evaluation. In the study, index values ranging from 4.051 (Istanbul) to -1,788 (Şırnak) were obtained, which was made with 52 variables selected by balancing between regional capacity and potential, and individual welfare. Based on this index value the development level and ranking of the provinces were determined.

Table 4.1. Development Levels of Tea Growing Provinces (SEGE, 2017)

Province	Ranking	Index Value	Development Level
Trabzon	26	0,389	3
Rize	36	0,174	3
Artvin	49	0,235	4
Giresun	53	-0,323	5
Ordu	60	-0,486	5

According to the classification determined by the SEGE study, Trabzon province is at the third level of development, and the highest ranked province of the Eastern Black Sea Region in terms of development level. As the most developed province in the region, Trabzon has values above the country average in education and health dimensions. In education dimension, the province is in the 2nd place in ‘general secondary education enrollment rate’, 3rd place in ‘vocational and technical high school enrollment rate’, and 13th place in ‘college or faculty grade rate’. As for

health dimension, the province is in the 6th, 7th and 5th places, respectively, in ‘the number of hospital beds per capita’, ‘the number of physicians’ and ‘the number of dentists’. Along with Trabzon, Rize province is also at the third level of development. Among the provinces at this level of development, Rize is the province that is located in the easternmost part of the country. The province ranks 1st in the variable of ‘general secondary education enrollment rate’ and ‘vocational and technical high school enrollment rate’. As for the innovation variables, it ranks 9th and 19th respectively, in the number of patent and trademark applications per capita. However, in terms of the share of the parcels in OIZ (Organized Industrial Zones), the value of the province is below the country average.

Artvin, which has a low rate of urbanization, is at the fourth level of development. Fifteen out of every hundred people live in settlements with a population of twenty thousand or more, in the province. Also, the rate of rural asphalt, concrete village roads is also low. The province ranks 8th in the average daily earning data and is also in the 9th place in the number of mobile phone subscribers per capita.

Giresun province stands out especially in terms of vocational and technical high schools and general secondary education enrollment rate. It ranks 8th among 81 provinces in terms of this parameter with a value of 53 percent, where Turkey's average is 44 percent, and eleventh in general secondary education enrollment rate, where the national average is 79 percent, with a value of 90 percent. On the other hand, in Giresun, which ranks eighty and seventy-ninth in terms of average daily earnings for women and men, only 39 percent of the total population is well below its average (46 percent) in settlements with a population of twenty thousand and above.

Lastly, Ordu province has the highest urbanization rate along with Trabzon in the region. In terms of unemployment rate, the province is in the twelfth place among 81 provinces with an unemployment rate of 6.1 per cent. The province is above the country average in terms of graduation from vocational and technical high schools. On the other hand, Ordu, where 81 of every ten thousand people aged thirty and over

are graduates of a master's or doctorate, lags behind the country average. One of the areas that need improvement in the province is the drinking and utility water network service.

To sum, the most developed province among the tea producing ones, is Trabzon with index value of 0,389. In addition, if Trabzon is taken as the center, it is seen that the level of development decreases as you go to the east and west of the province. However, Giresun and Ordu, located in the west of Trabzon, have lower development indexes compared to the provinces of Rize and Artvin in the east.

Another SEGE study that is taken account in this section is the SEGE-2022 district-level study. Similar to the previously mentioned SEGE study, the development level of the districts is determined based on the selected parameters and the districts are classified in six development levels in the study. While the total number of districts in the country is 974, 74 of them are located in the tea producing provinces which constitute the study area of the thesis.

In the Table 4.2. Distribution of Districts in TR90 Region by Development Level, the distribution of districts of the region based on their development levels are given. Accordingly, the majority of the districts are at the fourth and third level of development in Eastern Black Sea Region. Only these two categories have more than half of the districts in the region. The share of the 5th level districts is nearly 23%. These numbers indicate that the majority of the districts in Eastern Black Sea Region is not at an advantaged position in terms of development.

Table 4.2. Distribution of Districts in TR90 Region by Development Level
(Gümüşhane province is not included.)

Level	Number of Provinces	Share of Provinces
1st Level	1	1,35
2nd Level	7	9,46
3rd Level	20	27,03
4th Level	22	29,73
5th Level	17	22,97

6th Level	7	9,46

Based on the ranking system of the study, the districts that are in the first 67th place are considered as the first level developed districts. The majority of these districts are located in the most developed provinces of the country. However, two districts from the Black Sea Region are managed to be classified in this category. While the first one is located in Atakum districts of Samsun province, the other one is the Ortahisar district of Trabzon, which is a part of the study area of the thesis. The most significant feature of the first level developed districts is the high values in the financial variables brought by the development of economic life in these districts. Covering only 67 out of 973 districts, this group has the 49% of the number of bank branches in the country and 56% of the card payment amount is made in these districts.

Table 4.3. Districts at the First Level of Development

Ranking	Province	District	Score	Level
56	Trabzon	Ortahisar	1,807	1st Level

As the central district of Trabzon, Ortahisar ranks 56th in all districts in the study. Even though tea production activities are carried out in the district, it is in a small quantity, with nearly 4.700 tonnes average production between the years 2012-2021. Based on the parameters used by the study, it is possible to say that the basic infrastructure of Ortahisar has been completed to a significant extent, and the variables representing education, health, and quality of life have higher values compared to other districts.

At the second level of development, there are 173 districts, which are spread throughout the country. The second level districts are generally located in metropolitan cities that are not included in the first level category. However, there are also central and tourism center districts of the provinces other than metropolitan ones. The 25 districts out of 173, are located in Black Sea Region, and only seven of them is in the study area of the thesis. Accordingly, after the central district of Trabzon, which is at the first level category, the central districts of Giresun, Ordu,

Rize, and Artvin, all at the 2nd level of development, are the most developed districts in the region. Also, Hopa district of Artvin and, Yomra and Akçaabat districts of Trabzon are at the second level of development.

Table 4.4. Districts at Second Level of Development

Ranking	Province	District	Score	Level
109	Giresun	Merkez	1,145	2nd Level
113	Ordu	Altınordu	1,121	2nd Level
119	Rize	Merkez	1,079	2nd Level
143	Artvin	Merkez	0,913	2nd Level
220	Artvin	Hopa	0,502	2nd Level
224	Trabzon	Yomra	0,48	2nd Level
236	Trabzon	Akçaabat	0,405	2nd Level

According to the SEGE study, districts at the 2nd level of development are mostly concentrated on manufacturing industry and service sector. In some education variables representing human capital, which is one of the most important inputs of socio-economic development, it is seen that the districts in this category have values above the country average. In these districts, the ratio of women graduated from primary school and above and the ratio of the number of university students to the total population are at high levels. Based on the study, there is a heterogeneous structure within the second level category, depending on the population and educational infrastructure opportunities.

In direct proportion to socio-economic development of districts that are at the second level, it is seen that the net migration rate of these districts is generally positive like the first level developed districts and they receive immigrants from other settlements. In this case, it can be said that these districts tend to receive immigration instead of emigration, unlike the region in general. The emigration issue of the region has been mentioned in the previous parts of the chapter. Accordingly, the compatibility of the mutual cause-effect relationship between the decreasing attractiveness of tea production and the population loss of the region should be evaluated in terms of the immigration trend in these districts.

Table 4.5. Tea Production Level of the Districts at 2nd Level of Development

Districts	Tea Production Level	Districts	Tea Production Level
Merkez (Giresun)	6th Level	Hopa	5th Level
Altınordu	7th Level	Yomra	6th Level
Merkez (Rize)	1st Level	Akçaabat	6th Level
Merkez (Artvin)	No Production		

As seen in the **Error! Reference source not found.**, all of the districts in this category, except center district of Rize, have either low level tea production (6th level or 5th level) or no tea production activity at all. The center of Rize, on the other hand, is the biggest tea producing district in the region. Generally, the tea production level of these districts at the 2nd level of development indicates that the districts with high level of development in the region do not show much presence in tea production. Considering the pioneering role of Rize in tea, the high level of tea production in its center district can be considered as an exception.

In the SEGE study, the third level of development category consists of 175 districts. The districts in this level are more evenly distributed across the country compared to the first and second levels. The average values of education, health, quality of life and finance variables of the districts at this level are close to each other. In this category, there are 19 districts that are part of the tea producing provinces.

Table 4.6. Disticts at the Third Level of Development

Ranking	Province	District	Score	Ranking	Province	District	Score
246	Ordu	Fatsa	0,363	336	Rize	Fındıklı	0,018
265	Trabzon	Vakfıkebir	0,268	339	Giresun	Tirebolu	0,014
266	Ordu	Ünye	0,266	345	Trabzon	Çaykara	-0,023
273	Artvin	Arhavi	0,222	357	Giresun	Görele	-0,045
277	Rize	Pazar	0,199	361	Trabzon	Of	-0,06
283	Trabzon	Beşikdüzü	0,17	369	Trabzon	Arsin	-0,083
311	Rize	Ardeşen	0,078	398	Ordu	Gülyalı	-0,145
316	Giresun	Bulancak	0,063	400	Trabzon	Maçka	-0,15
322	Trabzon	Sürmene	0,056	408	Artvin	Murgul	-0,165
323	Rize	Çayeli	0,054				

Among these districts in the category, only Of, Ardeşen and Çayeli districts produce high amount of tea. In fact, Of district of Trabzon is the second district with the highest average tea production after center district of Rize.

According to the SEGE study, there are 215 districts at the fourth level of development in the country. As a result of their socio-economic development levels, it is seen that the net migration values of 154 out of 215 districts in this level are negative and they migrate to other settlements in total. 55 of 215 districts are located in the Black Sea Region. 22 of the districts in the Black Sea Region are within the study area of the thesis. This figure corresponds to 29.7% of the districts within the study area of the thesis and constitutes the most crowded development group of the region.

222 of the districts in Turkey are at the 5th level of development. While approximately 25% of these districts are located in the Black Sea Region, 7 of them are within the study area of the thesis. These districts in the study area are mainly in Ordu and Giresun provinces. While only Şalpazarı, Düzköy and Hayrat districts of Trabzon are at the fifth level of development, only İkizdere district of Rize is in this group. At the same time, these districts constitute the districts with the lowest development level of both Trabzon and Rize. It is seen that the net migration rate of the districts in this category is generally negative in direct proportion to their socio-economic development.

In the sixth level of development category, there are 121 districts and the net migration rate of all districts, except for five of them, is negative. While the districts have been losing population, the 68 of the 100 districts with the highest total fertility rate of the country are in this category. Another striking feature of the districts at this level is that the majority of the population lives in rural areas. In the “urbanization rate” variable used in the study, it is seen that 108 districts in this level have the value of zero. Accordingly, it is seen that the districts at this level differ from other districts, especially in terms of quality-of-life variables.

Almost 9.5% of the districts in the case study area are at sixth level of development. The only one of them is in Giresun, the remaining ones are in Ordu province. On the other hand, Trabzon, Artvin and Rize do not have any districts at this level. In terms of tea production, it is seen that the activity is not carried out in any of these districts.

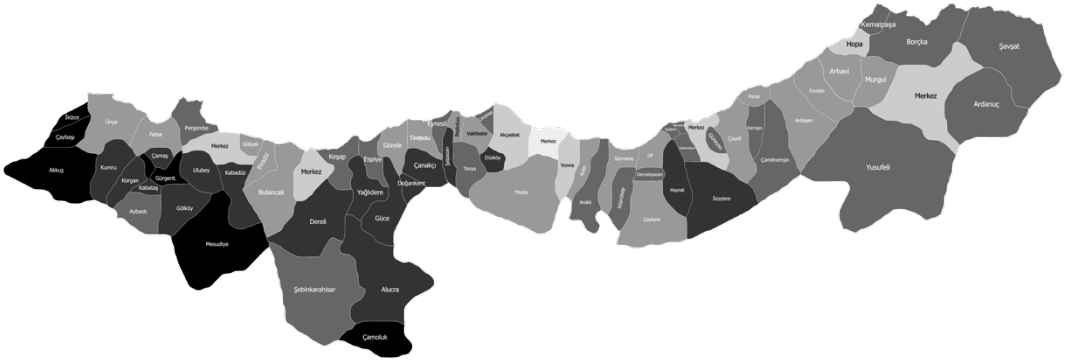


Figure 4.2. Distribution of Districts by Their Development Level

The development level of the related districts in Eastern Black Sea Region are illustrated in the Figure 4.2. According to this, it is seen that the districts in the inner part of the region have a lower level of development compared to the districts on the coast. The most effective reasons for this are both that these districts have problems in accessing basic urban services due to their distance from the center and that the inner parts of the region are topographically disadvantaged. Also, it is seen that the districts with low level of development are mainly concentrated in the west of the region, particularly in Ordu province.

Figure 4.3. Distribution of Districts by Their Tea Production Level

When the development levels of the districts are compared with the tea production levels regarding the thesis, no significant relationship between them is detected, which is also supported by the correlation value of 0,2 between average tea production and index value for development. However, the districts where tea production is high are generally located on the coast side, similar to the concentration of relatively developed districts on the coast. The common point here is that the topographic conditions in the coastal areas are suitable both for development criteria such as access to urban services and for tea production. These similarities and differences are reflected in the related plans for the region. As mentioned before, it is expected for policies to differentiate between places with distinct dynamics.

4.2.2 The Tea Industry and Eastern Black Sea Region in the Plans

Another issue that needs to be addressed in this section, is to reveal how both the region and the industry are handled in national and local plans. In this direction, a plan evaluation is made starting from the 11th Development Plan, which is the last development plan published.

The 11th Development Plan, which is the first plan examined within the scope of the study, is important with its assessments of global-scale trends and the strategic decisions it builds on these assessments. In this perspective, how the plan approaches to the agricultural sector and the tea sector are discussed.

First and foremost, the plan acknowledges the shift of the production axis from high-income countries to the developing countries. More importantly, the expectation for Turkey to develop further in this axis in the coming years and be effective in areas such as global production, technology and added value has been expressed. In this direction, the concepts of digitalization, entrepreneurship and competitiveness regarding industrial and agricultural production were highlighted. Accordingly, it is predicted that the importance of innovative initiatives in global economy will increase in future since they have more flexible mobility compared to large firms.

Figure 4.4. Highlighted Concepts in 11th Development Plan

Other important points highlighted regarding global trends are the increasing demand for healthy, organic and good agricultural products, the transformation in the labor market and the role of the public in the economy. The increasing demand for organic products strengthens the tendency to deliver organic and local products directly to consumers through different marketing channels. In the transformation process of labor market, the increase in the free movement of labor on a global scale is expected to have an impact on economies such as South Asia and Africa, where young population is concentrated, to be the main source of global workforce in the future. In addition, the decrease in wages continues as a result of the shift of capital movements to countries with cheap labor. Finally, the regulatory and, if necessary, interventionist function of the public in the global economy has been strengthened on a global scale.

It is also expected that the digitalization will be strengthened to increase productivity through real-time data collection in the industrial production networks. In the development scenario for this technological and innovation-oriented structure, it is obvious that universities will become vital actors. In relation to this, there is a transition towards an entrepreneurial university model at the global scale, which will take an active role in the transformation of knowledge into value and in close cooperation with industry and the public.

In light of these global trends, 11th Development Plan emphasizes the need of Turkey to enrich its qualified human resources in priority sectors and areas, increase the diffusion of technology to enterprises, improve the organization and innovation capabilities of the firms, and effective mechanisms for research and development

(R&D), and financing of innovation with the aim of adapting to the technological transformation and gaining competitive advantage. Therefore, these issues are considered as priorities in the plan. For agricultural sector, the efforts for sustainable use of soil and water resources, food safety and keeping the agricultural population in place, increasing rural development supports, increasing the use of technology and information in the usage of inputs, diversifying marketing channels, and directing production in accordance with the demand come to the fore.

The targets of the 11th Development Plan are determined within the framework of a stable growth model based on exports, focusing on productivity and in which the industrial sector plays a leading role. Accordingly, in public investments, priority will be given to the manufacturing industry sectors of the Development Plan and horizontal areas such as R&D, digitalization, human resources, logistics and energy, which will strengthen the human and physical infrastructure for these sectors, and agriculture, tourism and defense industry areas.

In order to reach the targets foreseen in the priority sectors and development areas in the Plan, it is envisaged to budget public investment expenditures related to education, logistics infrastructure, industrial zone infrastructure and irrigation. In addition, the expenditures required by the incentives and supports provided to support the investment, R&D, innovation, production and exports of the private sector are also foreseen to be budgeted in the plan period. The financing of these expenditures will be met from the financial area that will be formed as a result of the rationalization of the budget revenues and expenditures. During the Plan period, the share of expenditure items that will increase the long-term productivity and efficiency of the economy in budget expenditures will be increased.

As for the rural development, plan states that the supports from the Pre-Accession Assistance for Rural Development (IPARD), and Rural Development Support Program will continue for rural agriculture, the development of farm activities through rural economic infrastructure investments, rural tourism, handicrafts and informatics practices in rural areas.

In order to develop the human capital of the rural community, activities on farmer training and agricultural consultancy for family businesses will be strengthened, adult population, especially women and young entrepreneurs, will be provided access to non-formal education courses, vocational training programs will be programmed based on local products with high added value. Considering the disadvantages of women and young farmers in the rural areas, it is aimed to support them in agricultural education-extension activities, rural support projects and occupational health and safety trainings in agriculture.

Lastly, inferences about the tea sector were also made in the Development Plan. Accordingly, Çaykur will conduct market research for export and ensure product optimization. In order to increase the productivity of long-lasting and high value-added herbal products such as tea and hazelnut, renewal of planting areas which have completed their economic life and whose productivity has decreased will be supported. In addition to traditional tea products, products with high added value such as cold tea, organic tea, white tea will be developed from the tea plant. With a target market and target product-oriented approach, the Export Master Plan that will support the integration of the firms into the value-added stages of the global value chains and aim at sustainable export growth, is decided to be prepared and put into practice.

Due to the transformative speed of technological developments and communication channels in economic and social life, competitive pressure has increased at the global level, and countries have entered into a fierce race to become more competitive. In this race, the physical, human and technological infrastructure needs to be strengthened in order to have a more competitive economic structure that will enable it to be at the top of the global value chains.

Beside the 11th Development Plan, the *Medium-Term Program (2023-2025)* also include agriculture sector in its context. At the Program, it is aimed to ensure food supply security by reducing input costs in agriculture by implementing technology-oriented transformation programs, and by producing at the targeted proficiency rate

in strategic agricultural products, and farmer incomes will be adjusted to ensure the continuation of sustainable production. Agricultural supports will be allocated to increase productivity and quality in production, and ineffective support practices will be terminated.

In order to support price stability, a stock tracking system for agricultural products will be established and traceability in food product warehouses will be increased. New mechanisms will be developed in order to prevent price fluctuations by increasing the predictability in agricultural production, to ensure that the farmer can sell the product they produce at a value price and to supply the product of the quality that the industry needs. In order to ensure the supply of food products with the least waste and at reasonable prices, improvements will be made in the market and cooperatives with a holistic approach, and regulations will be implemented to ensure that the distribution is registered and has the least logistics cost.

Producer organizations and cooperatives will be made more active for production planning and shortening the supply chain in order to strengthen the institutional capacities of agricultural organizations. Particular support will be provided to investments that focus on innovative and value-added production in the investment incentive system, aim to move to higher levels in the global value chain, and are compatible with clustering priorities.

In light of these upper-scale plan and programs, there are also regional plan that is of great importance for regional and sectoral development. In this context, the regional plan that should be mentioned first in this section is undoubtedly the development plan prepared in 2000 for the Eastern Black Sea region, where the tea producing provinces are located. This plan, called *The Eastern Black Sea Region Development Plan*, has a special importance for the region as it is the first regional plan of the region. Through this plan, it was aimed to revitalize the region, which lost its former attractiveness especially after the Cold War period. To this end, the Government of the Republic of Turkey requested technical cooperation from the Government of Japan to prepare a multi-sectoral regional development plan for the

region. In response to this request, the Japanese Government decided to provide this support and appointed the Japan International Cooperation Agency (JICA), the official institution of Japan responsible for such cooperation program implementations. Hence, Eastern Black Sea Project (DOKAP) Regional Development Plan was prepared by the State Planning Organization (SPO) and the Japan International Cooperation Agency (JICA) in 2000.

The conditions of the region during the preparation of the plan were discussed under various headings in the plan. Accordingly, the most important features of the socio-economic structure of the region were summarized under five headings. Accordingly, the first socio-economic characteristic of the region was that it was one of the underdeveloped regions of Turkey. The region was the third region subject to the preparation of a special development plan after the GAP and Zonguldak. Secondly, the region was a net emigration region. Between 1990 and 1997, there was a population loss of more than 50.000 people in the region. Thirdly, the relatively large service sector was considered as a socio-economic characteristic of the region. In the plan, this characteristic was considered as the result of the trade and transportation activities that have developed over the centuries in the region based on the fact that the provinces of Trabzon, Gümüşhane and Bayburt are located on the historical Silk Road.

As the fourth socio-economic characteristic of the region, the dependence on limited number of products, tea and hazelnut, in the agriculture sector was identified. Accordingly, the share of these two products in the total agricultural land was approximately 60 per cent. The plan argued that the development of agro-based industries and agriculture-related activities were greatly limited by the fact that the production, processing, and marketing of these products were carried out by State enterprises. The last characteristic determined by the plan was the large inequalities observed in the region. Based on the plan, these inequalities arose by the difficult geographical conditions. As for the thesis, the emphasis on the limited product variety in the region and limitations brought by the involvement of state in the

production processes of this products is important. It can be said that these two characteristics of the region has not been changed much in tea sector case.

After the analyses on the region conducted, three different development alternatives for the region were determined in the plan: (1) Sustainable integrated development, (2) accelerated agro-industry-led development, and (3) outward-oriented, services-led development. All these possible development alternatives were designed for the development of the region by 2020. Based on these development alternatives, five sectoral development strategies were determined within the scope of the plan, and it was aimed to implement fifty-two projects with ten programs defined.

Although this plan was an important step towards the development of the region, it could not be put into practice due to several obstacles. Firstly, the financial difficulties at the beginning of the 2000s were greatly influenced this situation. Additionally, the lack of participation of the stakeholders in the planning process and the lack of an institutional structure directly targeting the implementation of the plan at local scale were other main obstacles. Even though the plan could not be implemented, it became an important base for the following regional plans. In addition to this, this plan is an indication that the region still has not completely solved its main problems to this day.

Another significant plan for the region is the TR90 Eastern Black Sea Region Plan for the years between 2010-2013. The main objectives related to the economy of this plan were improving the competitiveness of the regional economy, increasing the employment in the region, activating the tourism potential of the region, and increasing agricultural diversity in the region and to strengthen the agro-based industry.

The emphasis on agro-based industry is important both for the region and the thesis. Even though the structure of the industry in the region is not exactly same in all provinces, it is mainly mased on agriculture. Particularly, hazelnut, tea and dairy products are widely produced in the region. While tea is mainly produced in Rize, Trabzon and Giresun are more popular with hazelnut production. Depending on these

products, the density of which differs according to the provinces, many industrial facilities based on these products have been established in the relevant provinces.

While the number of industrial facilities providing employment for more than 100 people in the region is mostly concentrated on tea and hazelnuts, particularly in the east of the region. It is seen that the number of such facilities in other industrial branches increases as one goes to the west of the region. According to the plan, the two most important potentials of the region in the agricultural sector are the cultivation and processing of hazelnuts, where 75% of the world's exports are realized by Turkey, and tea, which is one of the most consumed beverages in the world. In relation to this, developing these sectors and integrating tourism with tea and hazelnut plantations concentrated on and near the coast were defined as important in the plan. In this regard, particular emphasis was placed on farm tourism, and it was suggested to develop this type of tourism in the region.

Lastly, in relation to the subject of the thesis, there are two important concepts are mentioned and determined as among the priorities of the plan. Firstly, one of the priorities of the plan is to increase the product variety and the size of agricultural lands on which organic and certified production take place. Organic and certified production is an issue that is trending especially at the global level and will remain on the agenda for a long time due to the rising food safety concern. Therefore, it is positive for region and the agricultural sector that the plan included this matter. The other subject, which is branding, were also included in the priorities of the plan. Accordingly, regional branding in agricultural values such as milk and dairy products, tea, and hazelnuts was aimed through the plan.

Following this plan, Eastern Black Sea Regional Plan for the years between 2014-2023 were prepared by the Eastern Black Sea Region Development Agency. With the proposed model of this plan, it is aimed to contribute to the production activities that will be activated or are already active in the coastal area of the region through the economic and social structuring of the rural area. There is a significant emphasis on this matter throughout the plan. Accordingly, this relations between the rural and

urban areas will lead to refining of the urban area and the intervention in the rural area will be determined according to the definition that this network of relations will create in the future.

This proposed model was described in the plan as a small-scale "hold in place" effort in rural areas by diversifying economic activities and making privatization more organized. According to the plan, this effort is for rural areas to come out of the definition of “immigratory area” in terms of population.

The most distinctive evaluation of the plan is the specifying Trabzon as the regional center of TR90. This decision is also compatible with the policy of the Ninth Development Plan (2007-2013) that assigned Trabzon as one of the twelve regional growth centers in Turkey. In this context, it is believed that the steps to be taken to contribute to regional development in Trabzon will have a supportive and integrative effect on the work to be done in other provinces.

As for the tea sector in the plan, it is stated in the plan that the food production and agriculture-based industry in the region are mainly based on tea and hazelnuts. However, a significant part of the tea is consumed in domestic market, and the quality and the cost of the product is not competitive for export. In light of this disadvantage, the regional plan states that the aging tea fields need to be renewed, and the integration of agriculture and industry should be strengthened. Accordingly, one of the strategies of the plan is to improve the quality of products by conducting R&D studies in agricultural production.

As in other mentioned regional plans, the limitation of the products grown in the region is considered as a problem in this plan. This particularly poses a risk for the region since the price fluctuations of the main products of the region, hazelnut, tea and kiwi, are quite high depending on the harvest. Therefore, reducing dependence on a single product according to market opportunities is essential for the development of the region. However, due to the ignorance of the marketing opportunities and the difficulties experienced in delivering the product to the market,

the producers in the region are inclined to grow the products that they are familiar with instead of products with high added value.

Another strategy of the plan related to the tea sector is the renewing the tea gardens that are aged in the region. In order to protect the producers from the income loss, the income loss should be subsidized during the transition period. This is particularly vital considering that the inability of the producers to generate income during this period, which lasts for five years for tea plants. In fact, this is the biggest obstacle for the renovation works of the tea gardens.

4.3 Current Trends in the Industry

Approximately eighty-five years have passed since the beginning of tea farming in Turkey. Throughout this period, many significant changes have taken place. Particularly after the abolition of the tea monopoly in 1984, these changes and developments became more evident. The fact that Turkey ranks eighth in the world in terms of tea production area yet ranks fifth in production is an indication of essential advancements (Özcan & Yazıcıoğlu, 2013).

Tea cultivation in Turkey is carried out in regions outside the tropical and subtropical climate zones that make up the typical tea ecosystem. Instead, it takes place in a remote coastal microclimate area, surrounded by Kaçkar Mountain ranges. Therefore, tea gardens are located at 45 North Latitude and surrounded by the Caucasian Mountain range that cuts the cold in the northeast, the Kaçkar mountain ranges, which suddenly rise in the south and east, reaching 3500 meters in height and causing precipitation from the humid winds coming from the sea (Özcan & Yazıcıoğlu, 2013). This area is situated in the Eastern Black Sea Region of the country and stretches from the Georgian border to the Fatsa district of Ordu. Accordingly, this depicted area covers the provinces Ordu, Giresun, Trabzon, Artvin, and particularly Rize (Figure 4.5).

Figure 4.5. Tea Producing Provinces in Turkey

Although tea cultivation is carried out in all of these provinces mentioned, the size of tea fields and the production quality level differ for each province. Depending on these differences, a classification method for these areas is used. Consequently, tea areas have been classified as first and second-class tea areas based on certain features they have. According to this classification, first-class tea areas, which have higher yield and quality in the production, are constituted by the Black Sea coastline from the Georgian border to the Araklı-Karadere border of Trabzon and the areas extending 30 kilometers inland and up to 68 meters in altitude. On the other hand, the region from the Araklı-Karadere border of Trabzon to the Fatsa district of Ordu province is considered as the second-class tea region (Özcan & Yazıcıoğlu, 2013).

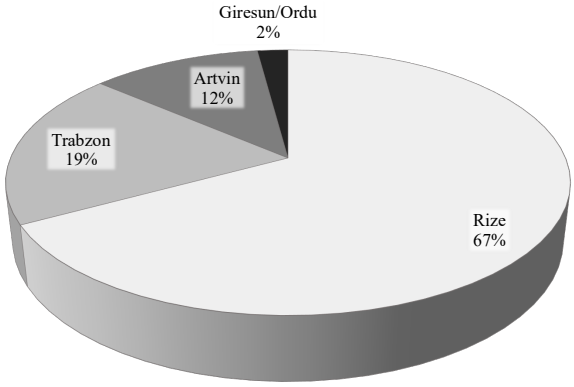


Figure 4.6. Distribution of Tea Fields by Provinces, %, 2021 (TURKSTAT, 2022)

In Figure 4.6, the distribution of tea fields by province is illustrated. Accordingly, Rize has the largest share in tea production areas among the five tea-producing provinces. As of 2021, more than half of the tea production areas, around 67% of that, are located in Rize. Trabzon has almost 20% of the tea fields as the second province with the largest tea production areas. Along with Rize and Trabzon, tea fields are relatively minor in Artvin, Giresun, and Ordu. While Artvin has 12% of the tea fields, Giresun and Ordu have a total area of two percent.

The tea production areas have been changing over time. However, the changes have not caused a significant difference in the distribution of the areas according to the provinces. Between 2005-2020, Rize accounted for an average of 65% of total tea fields, while Trabzon accounted for 20% and Artvin 11%. On the other hand, the tea fields in Giresun and Ordu solely have 2% of the total tea fields in the Eastern Black Sea Region (Figure 4.7).

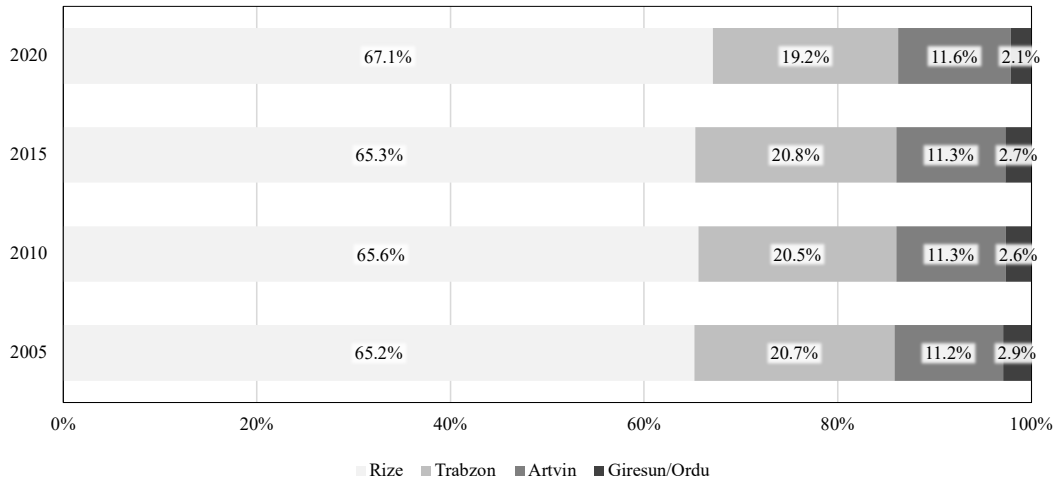


Figure 4.7. Distribution of Tea Fields by Provinces, percentage, 2005-2020 (TURKSTAT, 2022)

While the distribution of tea areas between provinces gives clues about tea production, it is also essential to examine how much the total area has changed in this process. For such examination, the total amount of tea fields that the Eastern Black Sea Region has is illustrated in Figure 4.8.

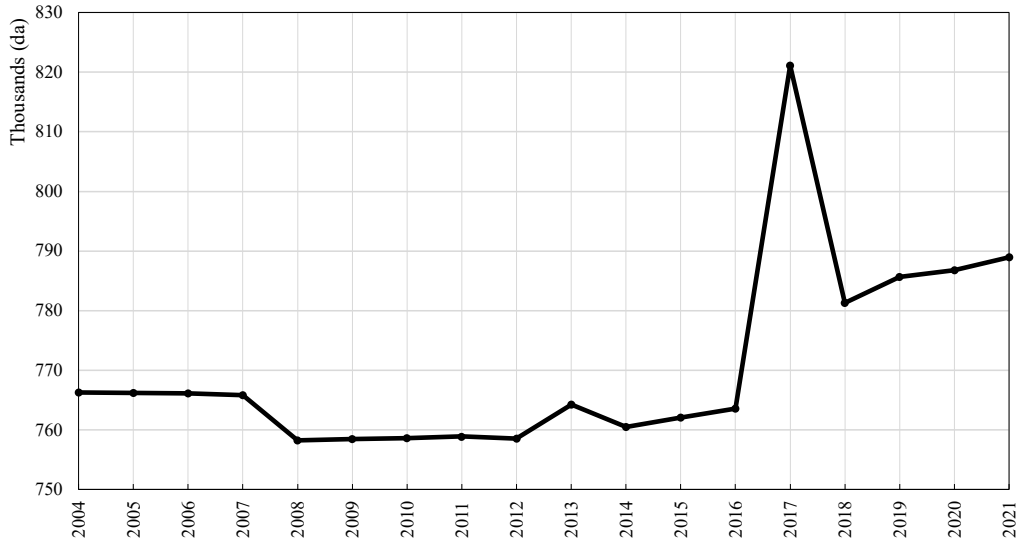


Figure 4.8. Changes in the Size of Tea Fields in Turkey, decares, 2004-2021 (TURKSTAT, 2022)

According to Figure 4.8, the size of tea fields in the country is generally on an upward trend, despite some ups and downs in the 18-year period from 2004 to 2021. Particularly between 2016 and 2017, there was a notable expansion in tea fields, in which the total tea field of 763.609 decares increased by 7.5% in a year and reached 821.079 decares. However, in 2018, it had decreased to 781.334 decares. Since then, there has been a tendency to expand in tea fields, albeit with low acceleration.

This fluctuations in the size of tea areas has been experienced due to the licensing process of tea areas in accordance with the decree numbered 2015/7534, and new tecniqiues used for the measurement of the fields. Hence, the changes in the fields have not necessarily been emerged as a result of establishment or removal of tea areas in physical senses (Önçırak, 2019).

Table 4.7. Distribution of Tea Areas and Producers by Provinces, 2019 (Çaykur, 2019)

Province	Tea Fields (decare)	%	Number of Producers (wallets)	%
Rize	527.715	67,23	126.531	63,38
Trabzon	150.237	19,12	46.816	23,45
Artvin	91.343	11,56	19.171	9,6
Giresun	16.332	2,08	7.102	3,56
Ordu	66	0,01	25	0,01
Total	785.693	100	199.645	100

While the total size of the tea production areas has changed over time, the tea production areas in provinces have also expanded or shrunk along with this process. In Rize and Artvin, tea fields have been inclined to expand for the last 18 years. However, there has been a downward trend in the size of tea fields in Trabzon, Ordu, and Giresun (Figure 4.9).

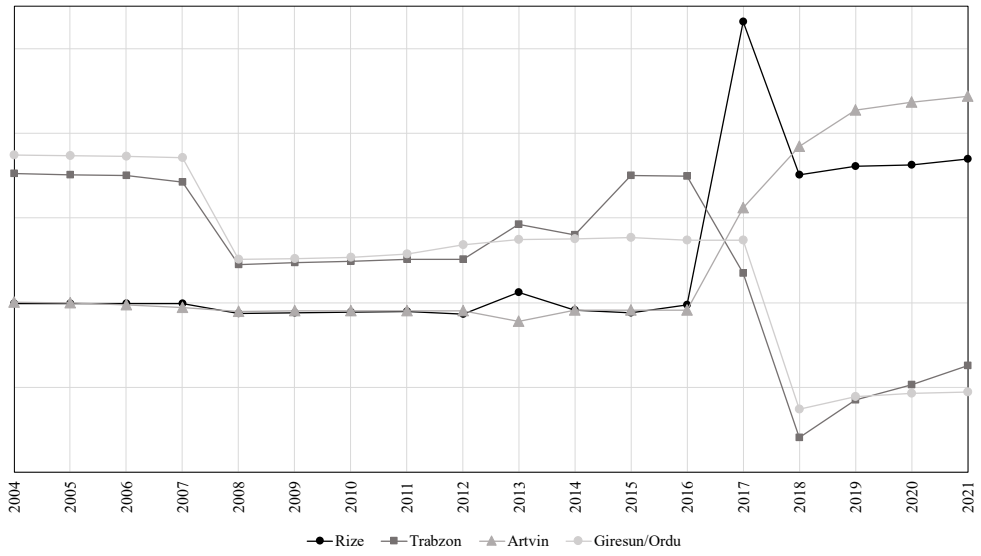


Figure 4.9. The Size of Tea Fields in Provinces, da, 2004-2021 (The obtained data is used after being normalized, Source: TURKSTAT, 2022)

Similar to the total production area trend in the region, the tea fields in Rize significantly increased between 2016-2017. Following this, there was a sharp decline in the next year. Trabzon, which has the largest tea fields after Rize, started to shrink its tea fields, particularly after 2016. As opposed to Trabzon, tea fields in Artvin are

inclined to expand. Particularly after 2016, there has been a significant momentum of increase in tea fields in the province. Ordu and Giresun are the other provinces with decreasing field size. While Giresun experienced a decrease in the size of tea fields between 2007-2008 and 2017-2018, Ordu, similar to Giresun, had its first decline in tea fields between 2007-2008. There has also been a decrease between 2011-2012 and 2017-2018.

The tea production areas in 2021 by districts are illustrated in Figure 4.10. It is evident that the tea fields are mostly concentrated in the east side of the Eastern Black Sea region. There are 529.321 decares of tea fields in Rize, the pioneer province in the tea industry and the only province with tea fields in all its districts.

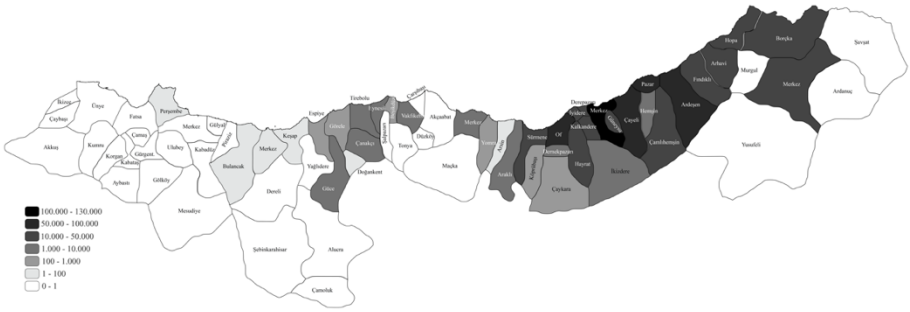


Figure 4.10. Distribution of Tea Fields By Districts, decares, 2021 (Created via paintmaps.com using TURKSTAT (2022) data)

Among the districts of Rize, Merkez district has the largest tea cultivation area with 126.195 decares (

Table 4.8). Çayeli, Ardeşen, and Pazar are the other districts with large cultivation regions. İkizdere and Hemşin, on the other hand, have the lowest percentage in the size of tea fields in Rize with 4.416 and 3.675 decares.

Table 4.8. Distribution of Tea Fields in Rize, 2021 (TURKSTAT, 2022)

Districts	Tea Field (decares)	Districts	Tea Field (decares)
Merkez	126.195	Güneysu	39.163
Çayeli	82.774	Derepazarı	19.370
Ardeşen	72.603	İyidere	18.744
Pazar	66.426	Çamlıhemşin	14.001
Fındıklı	41.468	İkizdere	4.416
Kalkandere	40.486	Hemşin	3.675

In Trabzon, there are tea fields in 13 of the 18 districts. Of district have the largest tea-producing area with 82.271 decares. The neighboring Sürmene district, with 26.951 decares, and Hayrat district, with 21.823 decares are the other districts with large tea fields. Araklı, Akçaabat, Düzköy, Tonya and Beşikdüzü have no tea fields. Borçka, Merkez, Arhavi, and Hopa are the only districts that have tea fields. The sizes of tea fields in all districts are between 20.000-26.000 decares. As for the distribution of tea fields in Giresun districts, it can be seen that they are generally located in the north of the province, near the coastline. Eynesil has 6390 decares tea fields among the Giresun districts, making it the district with the largest-tea fields in Giresun. As for Ordu, only the Perşembe district has tea fields limited to 67 decares.

All things considered, the tea industry has rapidly grown in a short period in Turkey, despite being a relatively new industry in the country compared to other producing nations (Özcan & Yazıcıoğlu, 2013).

Table 4.9. Tea Field Sizes and Number of Producers by Province 2020-2021 (Çaykur, 2021)

Provinces	2020				2021			
	Tea Fields		Producer		Tea Fields		Producer	
	Decare	%	Number	%	Decare	%	Number	%
Rize	527.999	67,11	127.049	63,26	529.32	67,09	128.423	63,15
Trabzon	150.782	19,16	47.306	23,55	151.454	19,20	48.068	23,63
Artvin	91.56	11,64	19.272	9,60	91.722	11,63	19.562	9,62
Giresun-Ordu	16.472	2,09	7.218	3,59	16.502	2,08	7.327	3,60
Total	786.813	100	200.845	100	788.998	100,00	203.381	100

In Table 4.9, the number of producers along with tea fields in the provinces is given. As of 2021, there are about 203.381 producers growing tea in an area of around 789.000 decares in the Eastern Black Sea Region (Çaykur, 2021). A year ago, in 2020, there were 200.845 producers in an area of 786.813. Therefore, both tea fields and the number of producers have increased since 2020. In 2021, 128.423 producers, 65.13% of the total, are based on Rize. Trabzon follows Rize with 48.068 producers. According to the table, while the share of the producers to the total producers of Giresun/Ordu and Trabzon is higher than the share of tea fields they own, the opposite is the case for Rize and Artvin. According to this data, Artvin is the province with the highest tea production area per capita. While the per capita tea production area is 4.7 decares in Artvin, this value is 4.1 and 3.2 in Rize and Trabzon provinces.

4.3.1 Production and Consumption

Tea is produced all year round in Asian tea-producing countries such as China, India, and Sri Lanka, given their equatorial climate. However, it is limited to only six months in Turkey since it is grown in a microclimate area where four seasons are experienced in a year. In Turkey, temperature drops to minus levels in winter, and tea fields remain fallow for half of the year. Considering that the snowfall caused by this cold weather suppresses the pest formation in tea gardens, it gives Turkish tea an essential feature as the only country in the world where it snows in the tea production regions. Since the formation of pests is suppressed by the snow in the region, there is no need to apply agricultural pesticides to the tea gardens (DOKAP, 2021; RTB, 2022).

In the previous four years, the fresh tea crop yield fluctuated between 1.259 and 1.400 thousand tonnes on average, exceeding 1.455 thousand tonnes in the region.

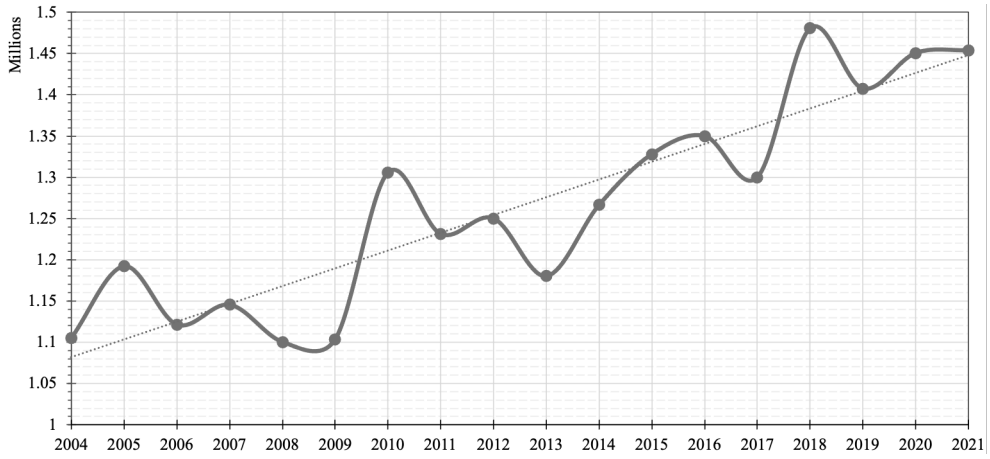


Figure 4.11. Tea Production in Turkey, tonnes, 2004-2021 (TURKSTAT, 2022)

Rize has produced the most significant amount of fresh tea in the last six years. However, its share of production decreased from 75% to 65% after 2012. Meanwhile, the share of Trabzon increased from 13% to 22%, and that of Ordu increased from 9% to 10%.

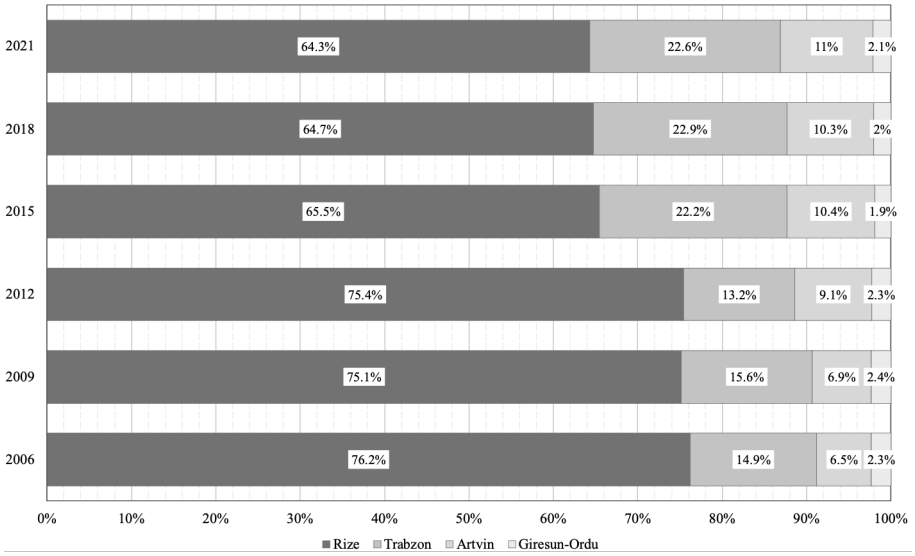


Figure 4.12. Share of Total Production Volume by Province, 2006-2021 (TURKSTAT, 2022)

The ratio in total tea production varies depending on the amount of tea produced by the provinces during the year. As can be seen in the chart below, there is a continuous fluctuation in the amount of tea produced by the provinces. For example, between 2012 and 2013, tea production in Trabzon grew by 43.6%, while it decreased by

15.3% in Rize. Accordingly, the total production share of Rize decreased from 75% to 68% between 2012-2013, and the share of Trabzon increased from 13% to 20%.

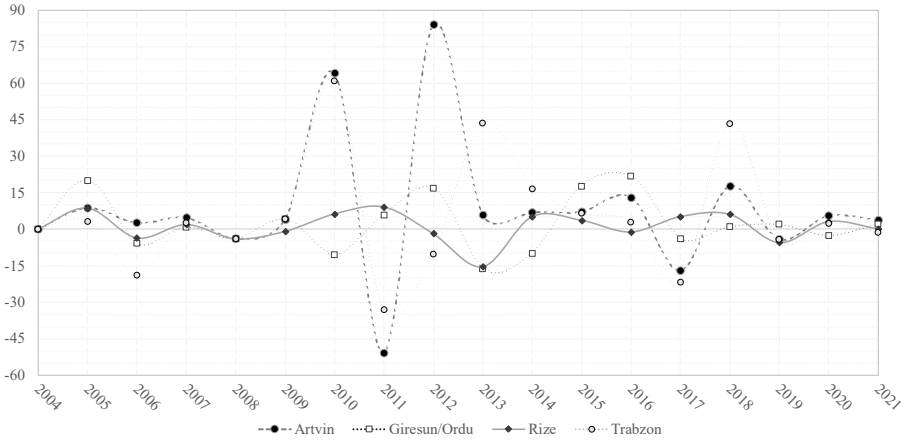
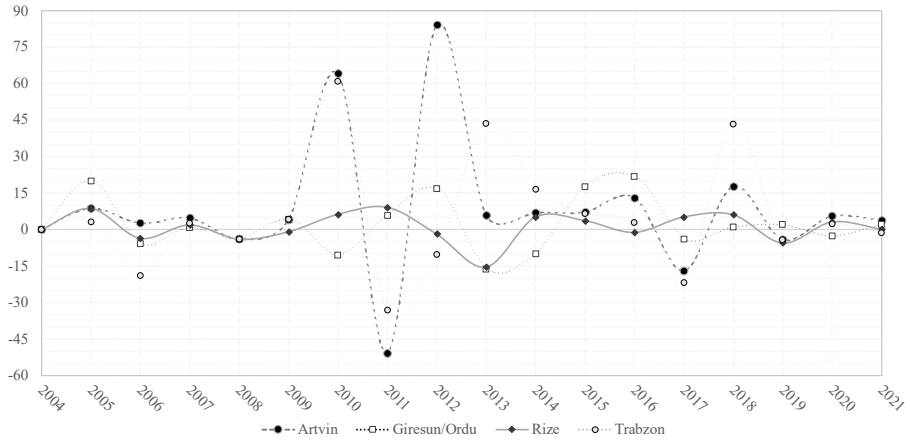


Figure 4.13. Change in Amount of Tea Produced in Provinces, %, 2004-2021 (TURKSTAT, 2022)

A striking point in



is the difference in the fluctuation in the tea production of the provinces. Rize, where the tea sector almost entirely shapes the economy, has generally presented a stable profile, with only minor changes in production. Likewise, large-scale changes were not observed in Ordu, which has only a 0.01% share in the country's production and where the tea sector does not play a major role in its economy. However, Trabzon and Artvin provinces, which led the tea sector after Rize, experienced a significant increase and decreased patterns from time to time during the process.

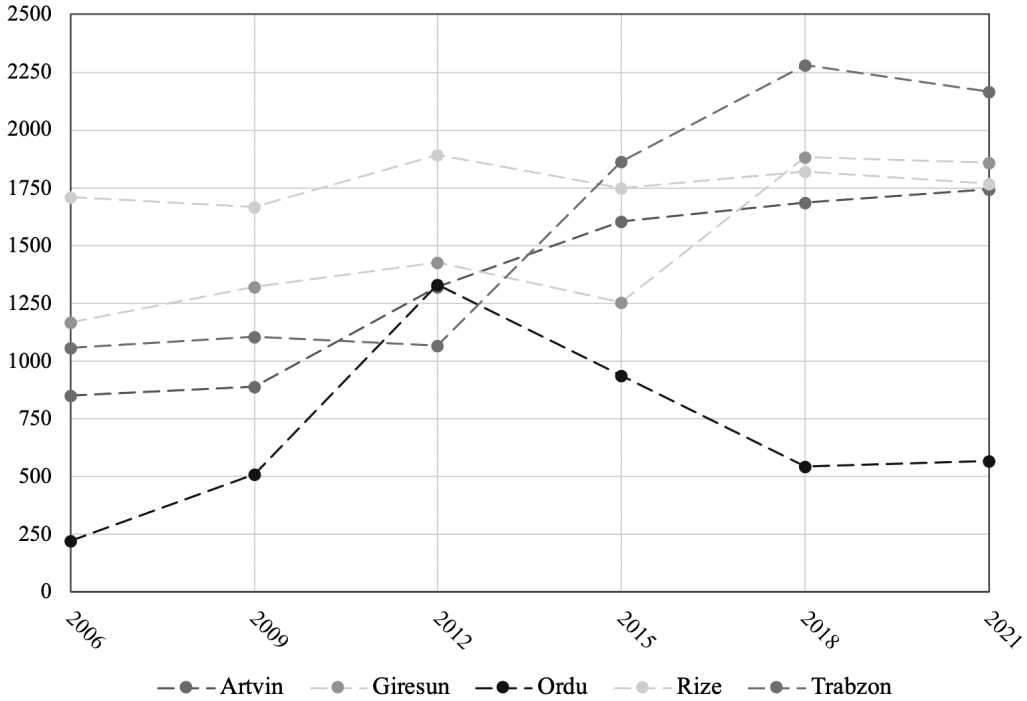


Figure 4.14. Yield in Tea Production by Province, kg/decare, 2006-2021 (TURKSTAT, 2022)

Aside from the size of the production areas and the production volume, another critical parameter is the yield, which depends on these two parameters. In an agricultural sense, yield represents the quantity of agricultural products harvested in a given land size. Hence, the yield in tea production by provinces is depicted in Figure 4.14. According to the graph, the yield in all five provinces is reflected as a fluctuating graph.

Particularly, the yield in Ordu and Trabzon has dramatically risen and fallen at times. Between 2012-2018, there was a steady decrease in Ordu after a considerable increase from 2009 to 2012. After this decrease, it entered an upward trend again in 2018. As for Trabzon, the yield has decreased since 2018 after increasing between 2012-2018. On the other hand, the yield in Rize has been declining since 2013. Lastly, Artvin is the only province with a continuous increase in productivity, even though the increase has been slowing since 2009.

Table 4.10. Average Yield in Tea Production by Province, kg/da, 2004-2021 (TURKSTAT, 2022)

Yield (kg/decare)	Artvin	Giresun	Ordu	Rize	Trabzon
	1.350	1.486	686	1.768	1.591

The average amount of tea production per decare in the provinces during the 18 years between 2004-2021 is shown in

Table 4.10. According to the table, an average of 1.768 kilograms of fresh tea per decare has been produced in Rize province. While in the other remaining provinces, Artvin, Giresun, and Trabzon, the yields are between 1.300-1700 kg/decare, the average production per decare is only 686 kg/decare in Ordu.

Current yields in the given regions must also be considered along with these average values. In 2021, the most efficient production is achieved in Trabzon. In fact, the highest yield in tea production has been achieved in Trabzon since 2018. In 2021, Trabzon produced 2.167 kilograms of fresh tea per decare, while Rize produced 1.67, Artvin produced 1.743 kilograms, and Ordu produced 567 kilograms per decare.

Although the fluctuations in yield can be considered normal to some extent since the tea product is vastly sensitive to climatic conditions, the reasons behind the sudden decreases and increases in yield are essential in identifying the threats and opportunities regarding tea production in the relevant region.

Table 4.11. Dry Tea Production in the Last Five-Years (TURKSTAT, 2022)

Total Dry Tea Production	2017	2018	2019	2020	2021
	254.000	297.000	275.000	280.000	287.000

Production of dry tea increased to 235.000 tonnes in recent years from less than 25.000 tonnes in the 1950s. There have been significant advancements in the tea industry over the past 30 years. Although the number of tea-growing regions in the country has not increased since 1995, the amount of fresh tea produced has significantly increased. Domestic consumption demand, which was met by imports

until 1963, started to be met solely by domestic production (Özcan & Yazıcıoğlu, 2013).

In Eastern Black Sea Region, the tea sector is not limited to fresh tea production, which is mentioned in this chapter. As mentioned previously, Turkey has been processing tea in factories since 1947. Therefore, fresh tea produced in these tea-growing regions is bought and processed by Çaykur or the private sector, and dry tea and various kinds of other tea are produced through the processing of fresh tea.

There are currently 207 tea factories in operation. Forty-seven of them are owned and operated by Çaykur, while the firms in the private sector own the remaining 160. Most factories are located in Rize, where the most significant production volume occurs. While Rize has 199 tea factories, Trabzon has 26, and Giresun has three. On the other hand, Ordu has the smallest share in tea production and has no tea factory.

The amount of fresh tea leaves purchased by Çaykur and the private sector is given in Figure 4.15. As can be seen in the figure, the purchases that have been made by Çaykur and the private sector have changed over the years. The underlying reason behind the increase in purchases is the rapid establishment of new tea production areas in the region. Considering that the construction of new tea fields is still continuing, it is expected that the increase in production will also continue (RTB, 2022).

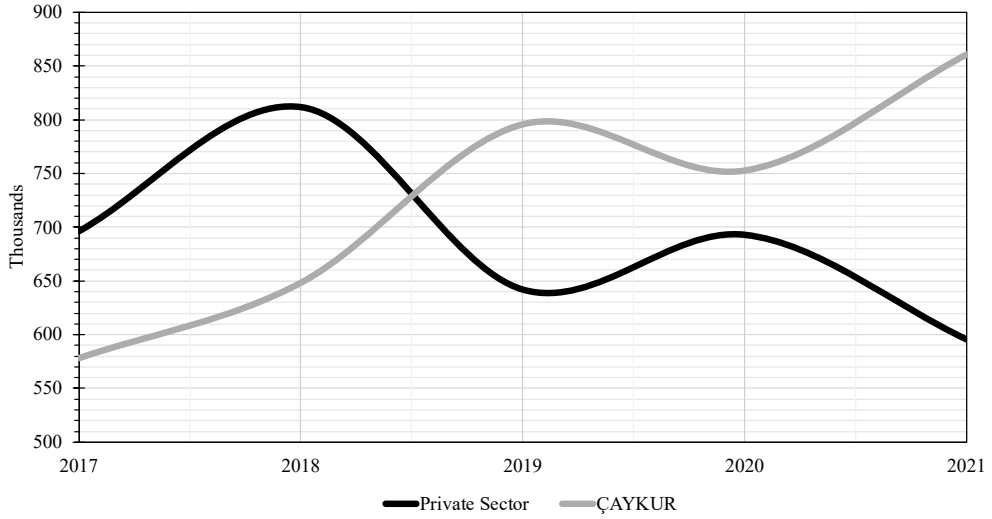


Figure 4.15. Tea Purchase Amounts of Çaykur and Private Sector (RTB, 2022)

Another striking point in the figure is that while the amount of tea purchased by Çaykur and the private sector increased together between 2017 and 2018, they showed opposite growth trends since the middle of 2018. The change experienced particularly since 2020 points to the increasing share of Çaykur in the sector.

The state-led institution produced a total of 163.308 tons of classified and a total of 138.175 tons of packaged tea in 2021. Of the classified teas produced, 155.853 tons are black classified bulk, 216 tons green classified bulk, 7.152 tons organic black classified bulk, 27 tons organic green bulk, 0.066 tons classified white tea, 40 tons classified granule tea, 20 tons classified tea powder. Moreover, packaged teas produced in 2021 are made up of 137,475 tons of black, 148 tons of green, 520 tons of black organic, 0.64 tons of white, 30 tons of packaged organic green tea, along with 2 tons of packaged tea powder (Çaykur, 2021). Briefly, it is seen that 287.000 tons of dry tea had been obtained throughout the year by the processing of 1.455.832.161 kg of fresh tea purchased. While the private firms had undertaken 40.90% of the possessing process, Çaykur had undertaken 59.10% of that (RTB, 2022).

As for the consumption of tea, approximately 270-280 thousand tons of tea are consumed annually in Turkey. Of this amount, 135 thousand tons of Çaykur teas,

125 thousand tons of private sector teas, and 35 thousand tons of foreign-origin teas. Particularly in the border provinces of the Southeastern Anatolia, Eastern Mediterranean, and Eastern Anatolia Regions, mostly foreign-origin teas are consumed. These kinds of tea enter the country through imports and makeup around %15 of the general consumption (Çaykur, 2019).

However, after Turkey became a large-scale tea-producing country in the 1950s, tea turned into a 'national beverage' for Turks. Turkey, where 96% of its population drinks tea daily, has an undoubted tea culture. This equates to 245 million glasses nationwide each day. Turkey is currently the country with the highest per capita tea consumption in the world with 3.2 kg. This means that a citizen of Turkey drinks 1250 cups of tea every year. Such a high level of consumption, multiplied by a population scale of 77.3 million, makes Turkey the world's second-largest black tea market with 247,330 tons in 2016. Turkey is also an important tea producer, with an annual production of 253,000 tons in 2016 (Çaymer, 2018b).

4.3.2 Exports and Imports

Even though Turkey is among the largest tea-producing countries in the world, it has not been able to get a sufficient share from the tea exports, except for some exceptional years. Turkey has not adopted an export-oriented policy for many years due to reasons such as high domestic consumption and high costs compared to the costs of other producers and exporter countries. Export in Turkey started in the 1960s when domestic production met domestic consumption. Before that, Turkey was a net importer in general and started to give importance to exports as the production met the domestic demand, and the stocks started to form. However, tea exports were generally lower than the average costs for many years, which resulted in economic losses. After the private sector got involved in the tea industry, tea exports gained a more stable structure in terms of profitability. In the early 1990s, tea exports exceeded 30 million dollars, particularly with the natural gas and Eximbank loan agreements made with the Russian Federation and Uzbekistan. However, when these

agreements were not made, exports generally remained at low levels. In the 2000s, an average of 5-8 million dollars of tea was exported (Çaymer, 2017, 2018a).

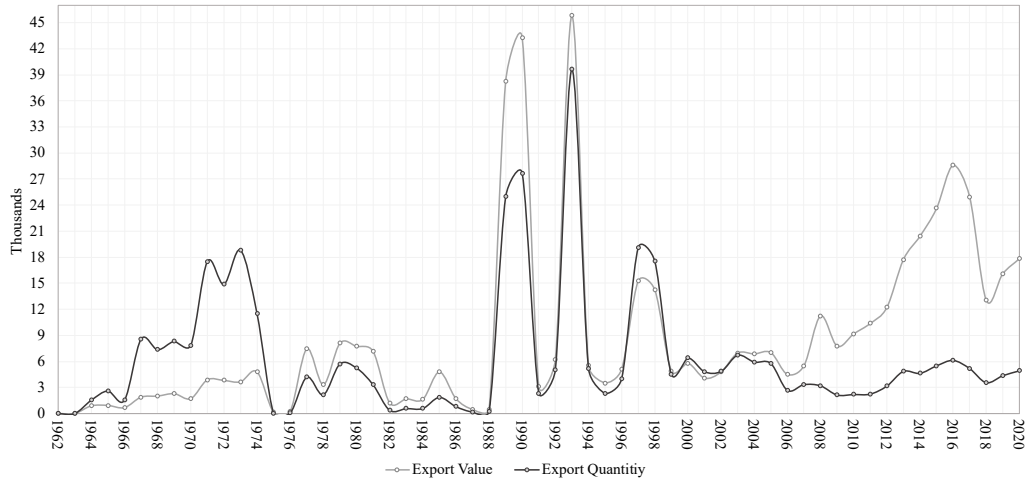


Figure 4.16. Tea Export Value and Quantity of Turkey, 1000$-tonnes, 1962-2020 (FAOSTAT, 2022)

Turkey exported approximately 6.7 tons of tea in 2016 and earned approximately 29 million dollars. While Belgium ranks first in Turkey's tea exports in 2016 with 2.115 tons, among the countries that Turkey exports tea to are primarily African countries as well as China and Japan. Apart from these countries, tea exports were made to European countries such as Germany and Lithuania, apart from Belgium. Germany is among the countries where tea exports are made the most, together with Belgium. Çaykur is the leader in tea exports of Turkey. In addition to the sales of Çaykur to dealers abroad, some firms make a small number of online sales abroad (Çaymer, 2017).

In 2021, Turkey exported 5,500 tons of tea, resulting in a foreign exchange inflow of $19.5 million to the country. Accordingly, while there was an increase of 16% in exports, the increase in value reached 12%. Exports were made to a total of 120 countries, with most of them located in Europe. Belgium, which ranks first in the export of Turkey, distributes the teas it exports to all European countries. One of the biggest reasons for the imported tea consumption in Europe is the intensity of tea consumption by Turkish citizens living in Europe.

The world tea industry is massive, with a consumption turnover of 12.5 billion dollars and an export turnover of 3.5 billion dollars. According to the data of Trabzon Commodity Exchange, tea production in Turkey in 2015 was around 256.3 thousand tons, and its export was around 5 thousand tons. Therefore, only about 2% of tea production is exported. In 2015, total tea exports worldwide were approximately 1.345 thousand tons. Accordingly, Turkey's total exports are at a deficient level (3 per thousand) and the lowest level compared to other producing countries. However, the annual average price of tea exported by Turkey is around $5.35. This amount is relatively high compared to other producing countries. According to the report of Trabzon Commodity Exchange, this price difference for the tea produced by Turkey is due to the sale of packaged tea instead of bulk tea. The fact that the price of Turkish tea is higher than the teas of other producer countries affects foreign sales in a negative way (Çaymer, 2017).

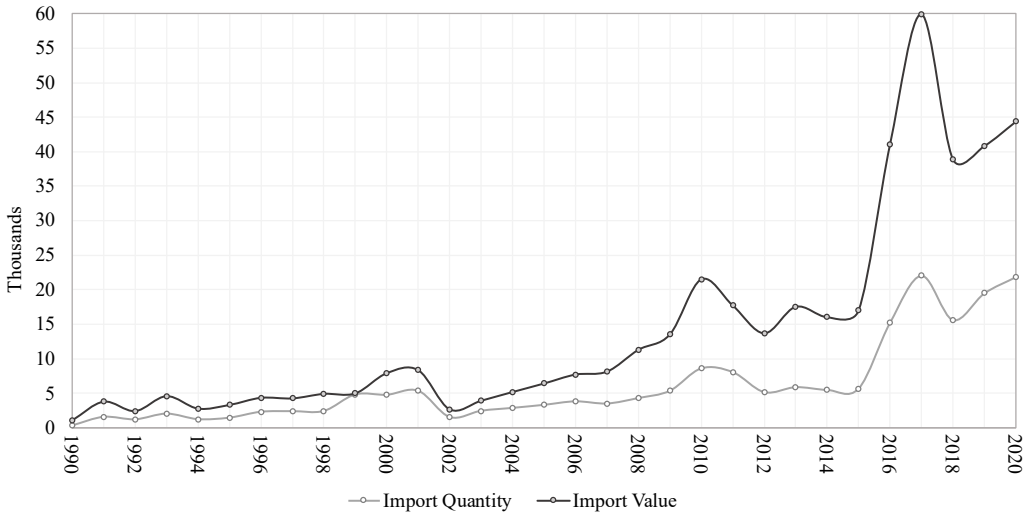


Figure 4.17. Tea Import Quantity and Value of Turkey, tonnes-1000$, 1990-2020 (FAOSTAT, 2022)

With a total import volume of 32,400 tons in 2016, Sri Lanka is Turkey's leading trading partner, and it is followed by Kenya. Turkey emerged as the primary buyer of Ceylon tea, with a volume of 37,800 tons in 2017. With a relatively small-scale export (only 6117 tons in 2016), Turkey's consumption relies heavily on its own production (Çaymer, 2018b).

4.4 Challenges of the Tea Sector

In this last section of the chapter, challenges faced by the sector that hinder the development of both the sector and the region will be revealed.

First and foremost, the ongoing decline in the quality of tea products is one of the major problems in the sector. Several underlying conditions cause the decline in quality. Considering the fact that the property structure of the region is already troubled, the downsizing of agricultural lands through inheritance is one of the most significant disadvantages of the sector. While tea production areas have become smaller in this process, their products also decrease in tandem. Subsequently, the income generated from tea farming has become insufficient to cover the needs of individuals (Çaymer, 2018). Due to the inadequacy of the financial return of tea farming, the care of tea fields and plants cannot be carried out on a regular and proper basis, resulting in a decrease in the quality of the fresh tea. Accordingly, the products processed in the factories are not of high quality due to the poor quality of the raw material (RTB, 2022). Since the control mechanism for purchasing fresh tea does not function properly, the factories can take poor-quality leaves for processing. This unrestraint leads to a decline in both dry tea quality and yield rates, which result in a decrease in the value of the tea sector. Also, it is possible to observe unrestraint in the behavior of the producers. Some producers take advantage of the inadequacy of control mechanisms, do not collect fresh sprouts, and prefer to harvest late to obtain more products (Çaymer, 2018). Additionally, some producers can illegally use pesticides to clean up the weeds that grow spontaneously in tea gardens. These pesticides may lead to environmental pollution by damaging tea plants and water (RTB, 2022).

In terms of fertilization, the unconscious use of more than 60-70 kg of chemical fertilizers per decare leads to decreased product quality, deterioration of soil structure, and pollution of underground water resources and streams. Due to the chemical fertilizer used for years unconsciously in tea farming areas, the structure of the soil has deteriorated. Hence, the tea plants cannot be fed well by the soil, which

decreases the quality and productivity of tea. For producers, it leads to an increase in expenses and a decrease in income (Çaymer, 2018; RTB, 2022).

Moreover, during the harvest period, the 'fish leaves' that need to be collected in the next shoot are damaged as a result of the use of scissors for tea plucking. Additionally, instead of two and a half leaves that need to be collected and make up the quality part of the tea, the third or fourth leaves that reduce the quality can also be put into production. This situation causes the quality of tea to decrease (Çaymer, 2018).

Today, the aging of the tea plants, which means low productivity for tea farming since the yield in tea shoots decreases with the aging, poses a major threat to the sector. Considering the fact that many tea gardens in the 1st class area of the Eastern Black Sea Region are the first established facilities, they have already completed their economic lives (Özcan & Yazıcıoğlu, 2013). Along with these gardens, some gardens are about to do so (RTB, 2022). Seeing that tea consumption is on an upward trend in Turkey, it is predicted that dry tea produced will not be sufficient for consumption in the country if the consumption trend continues at this rate (Çaymer, 2018). Therefore, aging poses a significant problem for the tea sector since there is a risk of insufficient production even for domestic consumption.

Today, a rejuvenation pruning system is applied to the plants for aging. However, appropriate pruning techniques are not exactly applied in the region. Even though a pruning program has been implemented since 1994, it does not provide the expected benefit to the tea plant. In fact, this system only prolongs the period of getting products from the same plant but does not eliminate its old age and does not increase the quality of the leaves obtained from the plant. Most importantly, the morphology of the tea plant has begun to change due to these factors (Özcan & Yazıcıoğlu, 2013; RTB, 2022). Consideringly, fixing this condition with the existing technique is not feasible. Hence, rejuvenation and renewal programs and the revitalization of old and inefficient tea gardens by using high-quality genotypes are vital for the future of tea farming in the region (Çaymer, 2018; Özcan & Yazıcıoğlu, 2013; RTB, 2022).

However, this leads to other problems for the sector since it takes time to get the first product from the tea plant after the new plantation. Generally, the first harvesting can be done after four years from the planting. Based on the ecological conditions, tea plants tend to reach their maximum product level at 8-10 years of age. Even though the ecological conditions and the applied techniques differ for tea plants grown in different geographies, the economic yield age of the tea plant is widely assumed as 50-60 years (Özcan & Yazıcıoğlu, 2013).

The another challenge the sector faces is the daily tea purchase quota applied by Çaykur to the producers. This quota implementation particularly challenge the fresh tea producers since in cases when producers have more product than the determined quota, they have to sell their tea to private firms. However, private firms in the tea sector turn this situation into an opportunity and purchase fresh tea at a lower price than the price determined by Çaykur. To illustrate, the purchase price of wet tea determined by Çaykur in 2015 was 1.70 TL. The private firms, however, reduced their prices to 0.90 TL (Çaymer, 2018).

Another problem for tea producers is delivering fresh tea to the collection centers of Çaykur. Considering that there are one or two centers in each village, it becomes more challenging for the producer to deliver their tea to these centers, particularly from remote areas. In order to overcome this issue, the producers either travel kilometers with the raw material on their backs or rent private vehicles at an extra cost (Çaymer, 2018).

In most villages, the experts assigned to the purchasing sites are obligated to work in more than one village. This also emerges as an important problem for the producers. Because the expert divides the day into two parts and works from 09.00 to 13.00 in one village and from 13.00 to 17.00 in the other, due to the lack of a tea purchasing and harvesting policy that covers the entire sector, confluences can occur in the collection centers during tea purchasing. In order to sell fresh tea as much as their daily quota, the producer keeps the tea picked from the previous day, as the

purchase is made until 13.00, and tries to deliver it to the collection center until the specified time by adding the tea collected the next day to the kept tea.

In some cases, the producers even try to sell all their tea within a few days and lay the tea they cannot sell on the roadsides, in the courtyards, and in various empty areas due to the stampede experienced in the factories during the harvest time. Hence, a severe decrease in the quality of the kept tea occurs, and the tea that has been waiting in these conditions for days sometimes dries out and turns red, particularly on hot days. Taking into account that the fresh tea leaves need to be processed as soon as possible after being picked, storing them in unsuitable conditions causes severe quality losses (Çaymer, 2018; RTB, 2022).

Additionally, the harvested fresh tea product is placed in synthetic cloths called 'teris' and crushed thoroughly, then wrapped in a bundle and tied tightly. After the tea is brought to the collection centers, it is weighed and laid inside the receiving house. Lastly, the fresh tea is loaded onto the trucks coming from the factories by pressing and chewing with the foot. All these crushing, pressing, and chewing of fresh tea lead to a quality loss in transportation (Çaymer, 2018; RTB, 2022).

With the abolishment of the tea monopoly, the production, processing, and sale of tea were allowed to the private sector. As a result, approximately 300 firms began to operate in the free tea market. However, private firms that operate without resettlement and license have emerged due to the inadequacy of legal regulations required in the sector. This situation reduced the quality of tea produced and provided a foundation for unregistered economic activities (Çaykur, 2021). The preparation for the legal regulation that will cover the entire sector and meet the demands of the public, industrialists, and consumers should be completed as soon as possible (RTB, 2022).

One of the main problems of tea firms is the inability to collect fresh tea throughout the year. This situation affects both the purchase prices of fresh tea and compresses the production time for certain months. Therefore, the firms need to keep a high amount of product stock. For instance, the amount of 2014 stocks belonging to

Çaykur constitutes 64% of all its assets. While this causes an increase in storage costs, it also negatively affects the quality of the tea due to the moistening of the dried tea obtained during storage (Çaymer, 2018).

The lack of qualified personnel is also one of the significant problems in the tea processing stage. The fact that production cannot be made throughout the year brings about the seasonality of the personnel employed. Personnel trained in private sector tea factories for one season may work in a different factory or a different sector in the next tea season. The high staff turnover rate causes disruptions in production and a decrease in quality (Çaymer, 2018).

The fact that both the production costs of fresh tea and the costs of processing are high are among the most critical problems of the firms. In addition to the labor and stock costs caused by the problems stemming from not harvesting tea throughout the year in Turkey, the purchase costs of fresh tea are also higher than in other tea-growing countries (raw material costs are about 1.5-2 times, labor costs are about five times). The reason for this is Çaykur's effort to protect the producer with its ‘ceiling price’ policy. This situation, which is positive for the producer, can create a problem for the private sector tea firms (Çaymer, 2018). Currently, firms in the sector, including Çaykur, meet their continuous financial needs from banks through loans with interest, to make payments as cash or in the following month. A gradual payment system should be considered to avoid this problem and keep the resources transferred to interest in the region, gradual payment system should be considered (RTB, 2022).

Although Turkey ranks fifth in global tea production and first in tea consumption per capita, the export rate is relatively low. There are two reasons for this: the high consumption of tea in the domestic market and inadequate focus on the foreign market due to excess production costs (RTB, 2022).

Smuggled tea is another major challenge for the tea sector. The amount of illegal tea seized in Turkey in 2012 is 2.000 tons. Including those who were not caught, this amount is thought to be between 35,000 and 40,000 tons. Significantly the tea

brought from Iran narrows the tea market in Turkey in terms of domestic firms and creates problems in reaching the targeted revenues. Apart from this, the fact that firms do not try to obtain the more bitter and sharp taste of Iranian tea, which is called illegal tea, and in this sense, their inability to respond to customer demands also creates adverse effects on sales revenues (Çaymer, 2018).

Marketing and promotion are essential competitive tools in the global economy. However, the tea sector does not use them efficiently except for a few large firms, and the marketing system of 50-60 years ago is still applied in the Turkish market. In contrast, the promotion and marketing strategy of a product, in this case, tea, is as important as how it is well-produced. The products that cannot be marketed adequately are highly inclined to cause losses in the tea market, where only certain firms achieve success with their promotion and marketing strategies (Çaymer, 2018; RTB, 2022). Tea consumption tendency of new generations is decreasing. It is necessary to reduce the VAT burden in the tea sector. In terms of marketing, product diversity should be provided in tea. Another problem is the lack of price and quality control on the shelf (RTB, 2022).

4.5 Summary of the Chapter

In this part of the thesis, the tea sector in Turkey is analyzed. Although tea is an agricultural product that started to be produced in Turkey during the Republican period, its history in these lands dates back to the Ottoman period. After several unsuccessful attempts before the establishment of the Republic, tea was finally successfully cultivated in the Eastern Black Sea region. Apart from realizing that the Eastern Black Sea climate is suitable for tea cultivation, there are different dynamics behind the attempt to cultivate the product in the region. In the Republic's first years, the expatriation of men and the increasing bandit activities in the region, which had great difficulties in terms of livelihood, made it necessary to intervene in the region. Accordingly, tea was brought to the region by the state in the hope that it would be a source of livelihood in the region.

Tea cultivation, which the people did not immediately adopt, took root in the region later with the support and persistence of the state, and tea leaves began to be processed in small-scale workshops. After a relatively short time, the first factory in the sector was opened, and industrial production began. Tea was highly regarded domestically, and production was sufficient for the first time in the mid-1960s to meet local demand. The most crucial development in the tea sector was the authorization of private sector activities in the tea industry in the 1980s. Followingly, the private sector started to e in the region while the state's influence prevailed.

The sector, which has had an important place in the Eastern Black Sea region since its establishment, has lost its former attractiveness due to increasing costs, decreasing returns, and population aging. The future of tea, a critical consumption item and an essential strategic product, must be evaluated for both the region and the country. Today, Turkey is the fifth largest tea producer and one country that consumes the most tea. It is an excellent advantage for the sector that there is no need for pesticides due to the microclimatic characteristics of the Eastern Black Sea Region, where tea is grown. Considering the concepts of sustainability and organic production that come to the fore at the global level, it is crucial to evaluate this advantage of the sector as a potential.

The issue of meeting the demands of global actors for regional development, which is also mentioned in the literature review section of the thesis, is thought to have significant potential for the development of the tea sector in Turkey and, thus, the Eastern Black Sea region. Accordingly, in the next section of the thesis, these issues related to the sector will be examined within the scope of the relations established with global tea production networks.

CHAPTER 5

THE INTEGRATION OF TURKISH TEA SECTOR TO THE GPNS

Today, tea is one of the most significant economic crops in many nations worldwide. The variety of tea products has been expanding, starting with drinking tea made from freshly picked tea leaves and moving on to commercial tea, tea beverages, tea powder, and tea bakery products (Yu et al., 2020). Among tea products, tea beverages, mainly black tea, make up most of the international trade (Hicks, 2009).

In 2022, revenue in the tea segment reached US$ 220.70 billion. In addition, the tea market is expected to grow by 6.75% annually (Statista, 2022). Tea cultivation and production are mainly carried out by large-scale firms that control the global tea market. In this regard, while tea cultivation is carried out in distinct parts of the world, such as India, Sri Lanka, Japan, Vietnam, Kenya, and Turkey, eighty-five percent of the global tea market is controlled just by four firms (Güler, 2021). While this is the case on a global scale, Turkey does not have a significant share in exports as one of the largest producers.

In this chapter of the thesis, the tea sector in the Eastern Black Sea region will be explored using GPN 2.0 framework developed by Coe and Yeung (2015). The chapter begins with investigation of the industry's key actors and production segments. These two components are essential for study since they are the main foundations of the sector, and they shape GPN 2.0 framework. After this investigation, competitive dynamics that influence lead firm practices are evaluated. Subsequently, organizational configurations and territorial outcomes of such practices for the Eastern Black Sea Region are explored. Through this discussion of lead firm practices that take place at the national and international levels in such a way, the specifics of the Turkish context are highlighted.

5.1 Actors in Global Production Network of Tea in Turkey

Today, the tea industry is one of the most significant sectors in the Eastern Black Sea Region. While it provides jobs for the people, it also meets the domestic demand, which is the highest in the world. The sector encompasses many actors who contribute directly or indirectly to the industry. According to the GPN 2.0 framework, these actors are categorized under two main groups: firms and non-firm actors.

The actor-network in the Turkish tea sector is roughly illustrated in Figure 5.1. As can be seen, the industry has a wide range of connections and minor and major actors. Depending on the context in which the production process takes place, the actor-network of the sector can alter and be more simplified or complicated.

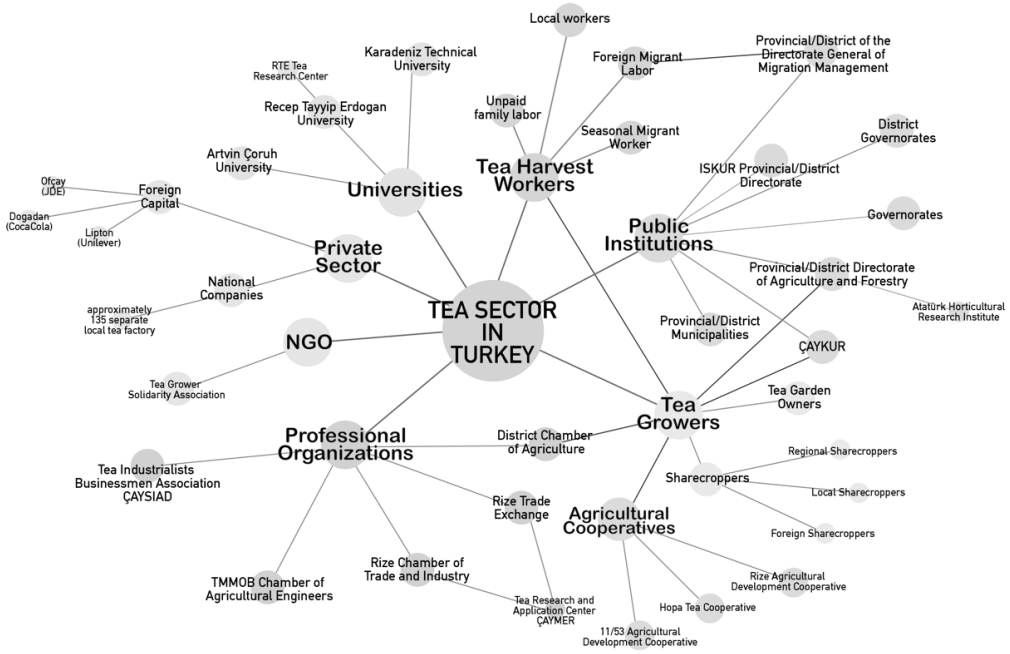


Figure 5.1. Actor-Network in the Tea Sector (Kalkınma Atölyesi, 2021)

Today, six main kinds of actor groups can be mentioned in the tea sector in Turkey. These groups are (1) fresh tea producers (tea growers and tea harvest workers), (2) public institutions, (3) the private sector, (4) professional organizations, (5) universities, and (6) NGOs. Each actor group has different roles and levels of influence in the production network of the tea.

Figure 5.2. Main Actors of the Tea Sector

As for the actor categorization of the GPN 2.0 framework, fresh tea producers, the private sector, and Çaykur, as an exception, since it is also a public institution, have the characteristics of firms. Therefore, they constitute the firm actors in the network. On the other hand, public institutions, professional organizations, universities, and NGOs are the non-firm actors in the sector.

5.1.1 Firms

Today, there are approximately 207 firms that operate in the Turkish tea sector. Forty-seven of these firms are owned by Çaykur, while the private sector owns the remaining ones. Çaykur, also a public institution, is the most prominent firm in the region. The firm has always maintained its leadership position in the sector, despite changes in its structure and duties since its inception. The institution was founded due to the need to control the tea sector after its rapid growth following its establishment. Accordingly, for the industry to function more effectively, Çaykur, formerly named as the General Directorate of Tea Institution, was established, and the related activities to tea agriculture and industry were left to the management of this institution. In 1983, the Directorate was renamed as the General Directorate of Tea Enterprises (Çaykur), and it became a public economic organization with a legal personality, autonomous in its activities, and limited capital (Önçırak 2019).

As it is also a public institution, Çaykur has a distinctive feature from other regional firms. Since its establishment in 1983, the firm has been the most influential public institution in the sector. The main objectives of Çaykur are stated as to develop tea farming in accordance with the agricultural policies of the country, to create investment resources by contributing to capital accumulation, to obtain a maximum benefit under free market conditions, to produce, market and trade tea products by supplying the necessary raw materials, and to carry out all kinds of activities to increase the competitiveness of the sector (Çaykur, 2021).

Çaykur, whose capital is wholly owned by the state, has 47 tea processing factories in the Eastern Black Sea Region. Thirty-two factories operate in Rize; the remaining are located in Trabzon, Artvin, and Giresun. While Trabzon has eight factories, there are four factories in Artvin and only one in Giresun. These factories that Çaykur owns have 8.650 tons of daily tea production capacity, which is the highest in the region (Çaymer, 2017).

Besides factories owned by Çaykur, there are also approximately 160 factories owned by the private sector that operate in the region. These private sector firms are scattered throughout the region. Similar to Çaykur factories, most of these factories, in fact, 110 of them, are located in Rize. The factories in the province are mainly concentrated in Merkez and Güneysu districts. Additionally, the Çayeli district of Rize and Of district of Trabzon are also notable with their 12 factories each. The number and location of these factories are given in Table 5.1.

Table 5.1. Number of Factories Owned by Private Sector

Provinces	Districts	Number of Factories	Provinces	Districts	Number of Factories
RİZE	Ardeşen	7	TRABZON	Yomra	1
	Çayeli	12		Sürmene	5
	Fındıklı	3		Of	12
	İkizdere	1		Arsin	1
	Güneysu	19		Araklı	1
	İyidere	7		Hayrat	1
	Kalkandere	3	GİRESUN	Eynesil	4
	Merkez	48		Güce	1
	Pazar	10		Tirebolu	3
ARTVİN	Arhavi	4		Keşap	1
	Borçka	2			
	Hopa	1			

While some factories sell their teas abroad and throughout the country, most of them are limited to the local scale. Also, these firms can be divided into two sub-groups by their ownership structures. Accordingly, the private sector is constituted of national firms and firms that are owned by foreign capital.

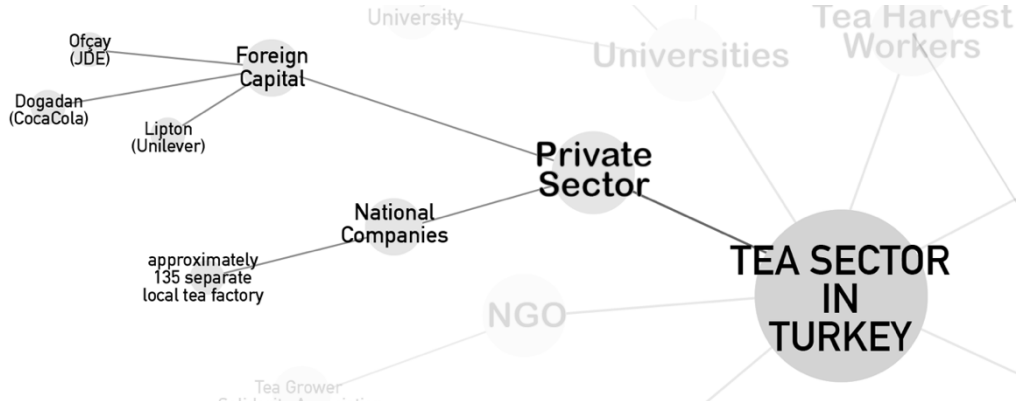


Figure 5.3. Private Sector

While 135 of these factories are domestic, there are also global brand factories in the region. Some local brands operating in the private sector are Doğuş tea, Kençay, Altınbaşak Tea, Filiz Tea, Güzel Tea, Demçay, Güneyce Tea, Orçay (Tatoğlu, 2017). On the other hand, Lipton, owned by Unilever, Doğadan, owned by Coca-Cola, and Ofçay, partly owned by JDE, are the significant foreign actors in the region.

In addition to Çaykur and private sector firms, another group of actors is also identified as firms in the sector. In the context of global production networks, smallholder tea producers can be considered as firms since they exhibit the dual characteristics of both capital and labor. In the Turkish tea sector, fresh tea producers form smallholder producers, which can be divided into two sub-groups based on their activities. Fresh tea production has two main activities: tea growing and tea harvesting. Tea garden owners or sharecroppers carry out the tea-growing process. On the other hand, tea harvesting can be carried out by unpaid family labor, local workers, seasonal migrant workers, and foreign migrant workers. These activities are depicted in detail in the following section.

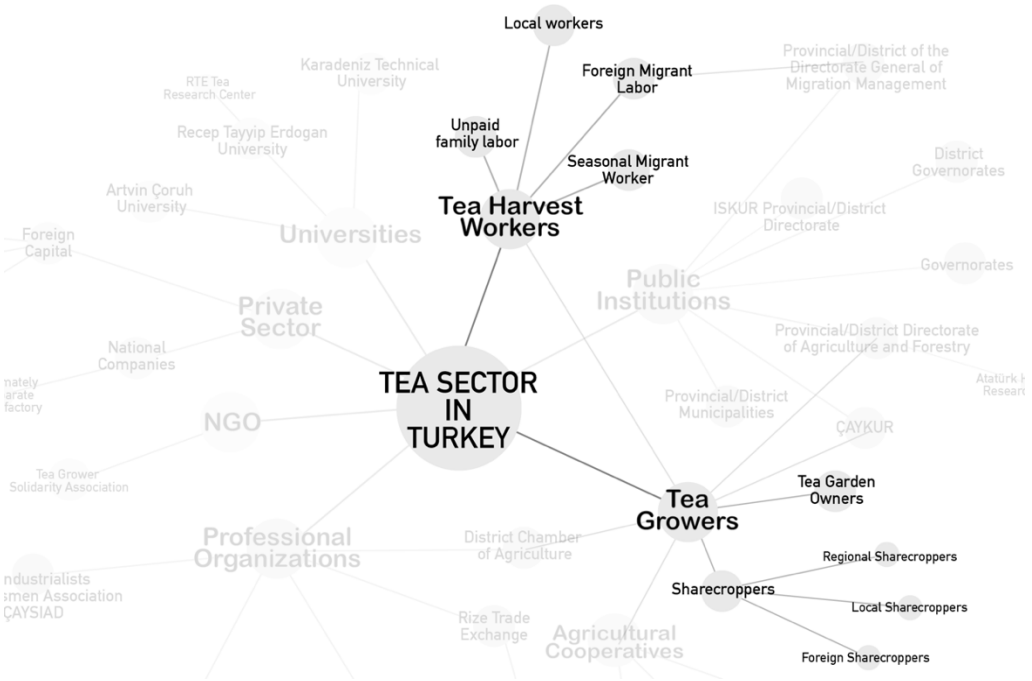


Figure 5.4. Tea Producers

While tea in the region was generally grown by the owners of the tea gardens a few years ago, the growing and harvesting practices in tea farming have nevertheless been transformed (Karaçimen & Değirmenci, 2019, 2021). This transformation has been heavily affected by two main dynamics. Throughout history, the Eastern Black Sea Region has witnessed both foreign and domestic migration. Since the region does not offer much opportunity for livelihood, people are inclined to migrate from the region, which in turn causes the aging of the residents in the region. Today,

almost every family has members who live outside the region. Therefore, it is not reasonably possible to go back to when tea production was carried out solely by the tea owners themselves. Second, land ownership has been changing hard in the region. Since the lands are shrinking due to inheritance, many farmers only have small-scale lands today. The number of families who rely solely on tea cultivation has decreased significantly due to the increasing number of people leaving the region and the shrinking size of lands (Dedeoğlu, 2016). Hence, the structure of land ownership and out-migration from the region have greatly influenced the employment structures.

The changing nature of the tea production process is also reflected in the shifting employment structure of the region. While 57% of the total employment was employed in the agricultural sector in 2005, the share declined to 41% in 2020 with no notable changes in employment. By evaluating this data with the decrease in unpaid family labor, it can be concluded that the unpaid family labor in the region is directed out of agriculture which consequently led to increasing demand for labor outside the households (Ulukan, 2021).

Despite all these, it cannot be claimed that those who migrated from the region completely cut themselves off from the tea sector. Some of the migrants are still able to continue tea farming in their villages even though they currently do not reside in the region. The most crucial factor that makes this possible is the originality of the tea plant. Due to the region's climate, tea is a seasonal product that gives three or at most four shoots between May and October. Hence, people can come to their village at harvest time and return to their primary jobs in other places after the harvesting period (Karaçimen & Değirmenci, 2019, 2021).

However, due to the decreasing level of unpaid family labor and the aging of the population in the region, most people started to resort to the sharecropping method. *Sharecropping* is a method that has been used for decades in the tea sector. Principally, the method is based on an agreement between the tea garden owners and willing people for the job. Both parties agree to use the land for tea farming in this

agreement. Through this method, the sharecropper retains the right to use the land without possessing it. While the tea garden owner is not under any obligation in the farming process, the sharecropper undertakes all the activities related to tea production. In this way, the two parties who have agreed to carry out tea farming through sharecropping share the income or returns from the tea crop by 50% and make a profit. Owners mostly opt for this method for reasons such as getting old, migrating, or having other occupations (Ul Haq, 2019).

Initially, the agreement with sharecroppers was made only with the people in the surrounding villages. In the following years, the scope of the application is expanded. Recently, three different types of sharecroppers can be mentioned in this context. The local sharecroppers are the ones that live in the same province, district, or village as the tea garden owner. In most cases, these sharecroppers are already tea producers themselves and can be relatives of the tea garden owners.

On the other hand, the regional sharecroppers do not live in the same province as the owners. Mainly, they are from Ordu and Giresun and go to other tea-producer provinces, particularly Rize, for tea farming through sharecropping. The last sharecropper type is the foreign sharecropper. They are mainly from Georgia due to the geographic proximity to the region and their experience in tea farming. It has been noted that some of these foreign sharecroppers are immigrants from Georgia who were employed previously as agricultural workers in the region (Ulukan, 2021).

Along with sharecropping, the labor processes in tea harvesting have also been transformed. Today, different intertwined labor processes have been used for tea farming instead of family labor. Accordingly, tea is harvested by four different actor groups: (1) unpaid family labor, (2) local workers, (3) foreign migrant labor, and (4) seasonal migrant workers. *Unpaid family labor* has the most extended history in tea production in the region and consists of those who harvest tea from their own tea gardens. Even though the share of tea production in household income has been decreasing, it still constitutes a significant part of the household income of these people. The vast majority of the labor consists of women and young people.

Alongside unpaid family labor, there are also *local workers* who live in the same province/district/village where the tea gardens are located and work in these tea gardens, which they do not own.

As a common practice in the region, seasonal agricultural workers are hired during the tea harvest times in May, July, and September. The production processes between harvesting and transporting the product to the factories are the parts of tea production that generate the most employment. The transportation of fresh tea leaves to the factories is just one of the many jobs requiring many workers in addition to those involved in harvesting tea leaves. After the tea leaves are delivered to the factors, the tea processing stage occurs, where many local registered workers are employed temporarily (Dedeoğlu, 2016).

During the tea harvest period, the population of the region significantly increases. For instance, the population quadrupled with arriving from cities all around the country, mainly big cities such as İstanbul and Ankara, at the beginning of the tea harvest season in 2022. Most of these people visit the region for tea harvesting. While some of them work in their own gardens, the remaining bargain with tea producers to work as *seasonal labor* in their tea gardens (Erbaş & Meyveci, 2022).

Lastly, foreign migrant laborers are workers from other countries who are employed formally. Most of this group is constituted of workers from Georgia and Azerbaijan. These employments are mainly for the harvesting and transportation of tea. The share of this labor group is an increasing trend in the region (Dedeoğlu, 2016). Within the scope of the coronavirus measures for tea farming in 2021, 40 thousand workers from Georgia and Azerbaijan could not come to the country due to the closure of the borders in that year (DHA, 2021).

Consequently, the gap they left was filled by other foreign migrant laborers who have residence permits in Turkey and workers from countries such as Gambia, Senegal, Sudan, and Zambia (DHA, 2021). Even though the coronavirus measures in tea farming no longer prevail, it is still possible to encounter foreign labor from other countries, such as Syria and Africa, along with Georgian and Azerbaijanis. While

Georgians mainly work in the tea harvesting stage, Syrians carry out the transportation work of the fresh tea leaves to the factories (Dedeoğlu, 2016).

Accordingly, a distinctive labor market is formed in the region. Through this market, it is now possible to encounter and contact workers with different national, ethnic, and cultural characteristics. Thus, rural areas have lost their former homogeneous structure and have become heterogeneous areas where groups with different backgrounds come together. Conflicting relations are formed based on interdependence and competition in the labor market (Yıldırım, 2016).

Among these different forms of labor, Georgians are mainly at the forefront of foreign labor due to the increasing demand for them because of the withdrawal of local people from the production process. Since Georgians mostly carry out the tea harvest in the absence of most local workers, their wages have become higher. This situation is mainly due to the competition between local producers to find workers at harvest time since the region has become dependent on the local and foreign workforce (Dedeoğlu, 2016; Yıldırım, 2016).

After this brief introduction of the firm actors in the sector, it is important to explore them based on their roles in the production network. As the first actor group, *firm actors* are classified according to their roles and functions in the global production network. Six types of firms are identified through this categorization: (1) lead firms, (2) strategic partners, (3) specialized suppliers (industry-specific), (4) specialized suppliers (multi/cross-industry), (5) generic suppliers, and (6) customers.

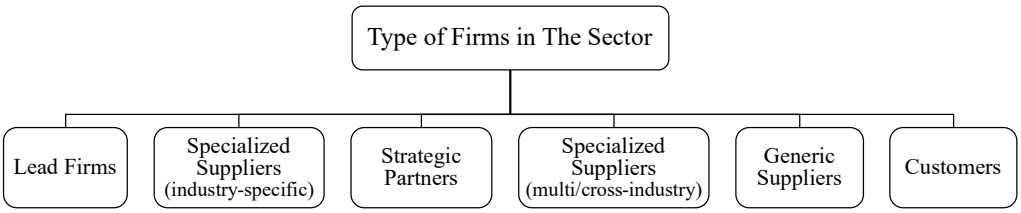


Figure 5.5. Firm Types in The Tea Sector

In this scope of the thesis, two different lead firm actors are identified in the Turkish tea sector, namely Çaykur and Lipton. The continued presence of the former has

been critical for both local and foreign firms' positions and their ability to maintain a market presence in the region. The decisive position of Çaykur in the tea market and its high market share make Çaykur the lead firm in the Eastern Black Sea Region. Due to the inability of the firm to show the same presence on a global scale and its decisive role limited at the national level, the firm is described as a "national lead firm".

The state-owned firm is followed by Lipton, a British tea brand owned by Unilever, a global actor in tea production. Unilever has a share of more than 20% in the global black tea market and is a publicly traded company. The black tea market has three brands that can be described as market leaders. Among them, Lipton has been operating in Turkey since 1986. Unilever's Lipton brand tea is the second largest firm in the market after Çaykur. Due to its market share and influence in the sector, Lipton is considered as an "international lead firm" in this study.

Apart from the lead firms, many other firms operate in the region. These firms, which differ in their production capacities and market shares, are considered specialized suppliers or strategic partners within the scope of the thesis. While some of these firms only operate and make local sales, some have the potential to become lead firms or strategic partners of the existing lead firms.

Alongside specialized suppliers, there are also generic suppliers, which are the smallholder tea producers in the region. As generic suppliers, these producers provide fresh tea leaves, which are relatively standardized and low value, to the tea processing factories in the production network.

5.1.2 Non-Firm Actors

In global production networks, the lead firms constantly engage non-firm actors and other firm actors. These non-firm actors, which include government, labor groups, international organizations, consumers, and civil society organizations, significantly influence the success of the network.

Figure 5.6. Public Institutions

As the most influential non-firm actor, the Turkish State's role in the tea sector can be categorized based on Horner's (2017) conclusion on the roles of the state. Accordingly, the State has four roles: facilitator, regulator, producer, and buyer. As the facilitator, the government establishes new tea-processing factories and carries out R&D activities in product and process upgrading. R&D activities can also lead to functional upgrading in production. Throughout the 11th Development Plan, the importance of technology, innovation, and R&D activities in agricultural activities are frequently emphasized in this direction. In support of this, the implementation of technology-oriented transformation programs is prioritized in the Medium-Term Program (2023-2025).

The state plays an active role in price control in the Turkish tea sector by determining the purchasing price of fresh tea leaves. Therefore, there is a state influence on regulating tea prices in the sector. The most crucial role of the state as the regulator of the tea industry is to make legal arrangements regarding the tea industry. Recently, the new tea law proposal has been much discussed by all actors in the tea production network. The State also acts as a producer and buyer in the sector through Çaykur. The state's investments in processing factories are an indicator of the producer role of the state in the tea industry.

On the national level, ministries as public institutions also significantly influence the sector. The Ministry of Agriculture and Forestry, among the ministries, is highly

influential in the tea sector and has a strong position in the policies on tea agriculture. The Ministry determines tea price determination and the support offered to the sector's stakeholders (Çaymer, 2017). For instance, the Ministry pays the loss of income from the pruning process to licensed tea producers. The support related to pruning is not only provided to the producers. Çaykur is also paid for the costs incurred in pruning determination procures since the process is carried out by approximately 450 personnel consisting of agriculture engineers, tea experts, and other personnel (Tarım ve Orman Bakanlığı, 2022). Alongside pruning supports, organic farming is another field for which farmers get payments. Accordingly, organic agriculture support payments are made to producers engaged in organic tea production in specified unit amounts (Çaymer, 2017).

In addition to the supports, there are also projects related to the sector that are carried out within the Ministry. For instance, 'Rehabilitation of Tea Gardens Project', prepared by the General Directorate of Plant Production of the Ministry aims to renew tea gardens that have completed their economic life with the clone tea saplings, to increase yield and quality in tea production and to ensure sustainability. This project is seen as an important step in increasing the competitiveness of the Turkish tea sector (Tarım ve Orman Bakanlığı, 2022). Along with the Ministry of Agriculture and Forestry, the sector is also supported by other ministries such as the Ministry of Trade, the Ministry of Treasury and Finance, the Ministry of Energy and Natural Resources, and the Ministry of Interior.

At the local scale, governorships, province, and district municipalities in the region are the primary stakeholders responsible for local measures, particularly the infrastructure work required for the renewal of tea fields and tea gardens that have completed their economic life. In addition, municipalities and mukhtars are the public institutions responsible for establishing, controlling, and supervising tea collection centers in the region's villages (Çaymer, 2017).

National Tea Council is another public institution involved in the sector. The Council was established to ensure that fresh tea producers and traders, industrialists and their

unions, associations, cooperatives, and unions, research and educational institutions, professional chambers, and non-governmental organizations related to the tea sector work together within the framework of national agricultural policies specified in the Agricultural Law No. 5488 and to regulate the working procedures and principles of this Council.

Figure 5.7. Professional Organizations

Tea Industrialists Businessmen Association (ÇAYSİAD) is one of the professional organizations active in the sector. The association was established in Trabzon by 11 medium and large-scale tea factories in the sector in 1997. The association aims to develop the tea industry, create brand products, improve the quality of tea, promote organic tea production, and renew tea areas. Also, the association strives to reduce illegal tea input and supports the activities of the National Tea Council, which takes an active role in its management (Çaysiad, n.d.).

Chamber of Commerce and Industry and Commodity Exchanges established in the provinces carry out chamber activities affecting all their members. Through its members, the Chamber of Commerce and Industry undertakes activities related to promoting tea through participation in fairs abroad. The Chamber, which is also the beneficiary of the 'Tea Research Center' project financed under the RCOP, also conducts analyzes on the tea sector. Industrialists in Rize carry out organizational activities in the professional field through Rize Commodity Exchange channel. Rize Commodity Exchange, founded in 1995, has 230 members, 178 of whom are dry tea

producers. Rize Commodity Exchange carries out regional and international research on tea. Also, it contributes to the sector with the projects 'Tea Tasting Training Project (Çay Tadımcısı Yetiştirme Projesi)' and 'Tea Bazaar (Çay Çarşısı)'. Similarly, Trabzon Commodity Exchange carries out research on tea (Çaymer, 2017).

Another actor in the tea production chain is the Tea Research and Application Center, established in Rize with the financing of €10m provided by the European Union and the Turkish Republic, aiming to improve the tea industry'sindustry's competitiveness. The center, managed by Rize Commodity Exchange and Rize Chamber of Commerce and Industry, aims to serve SMEs in the tea sector in the fields of R&D, training, and consultancy (Çaymer, n.d.).

Today, industrialization and monopolization of the agricultural sector cause irreversible damage to the environment and create disadvantages for producers and consumers. Accordingly, agricultural cooperatives that medium and small-scale producers establish come across as a mechanism that works in favor of the producers and consumers and the continuity of production on a regional basis (Yıldırım Şahin, 2020). While the possibility of Çaykur's privatization arose from the transfer of Çaykur's share to the Wealth Fund in 2017, the existence of the cooperatives involved in the production networks has the potential to become essential for the future of the producers (Şahin, 2018).

Figure 5.8. Agricultural Cooperatives

As one of the cooperatives in the region, Hope Tea Cooperative was established in 1959. After its establishment, the cooperative opened markets to provide food to its partners. Also, it provided fertilizer to the producers and even launched a tea factory to support them. However, the production activities in the factory had to be stopped due to financial constraints. Against the challenges faced over time, the debts are restructured by the cooperation partners, and the factory is put back into operation. This situation is a good example of the farmers taking ownership of their cooperative (Ekmen, 2018).

Özçay Agricultural Development Cooperative, founded in Trabzon in 1989, is another cooperative with a significant position in the industry. The cooperative has developed a product range suitable for the market's demand at every production stage through its fully equipped facilities. The brand of the cooperative has received the 'ISO 9000 Certificate' and 'International Quality Award'. It has achieved a significant market value in organic tea with its work since 2002. Followingly, it reached an agreement with Agricultural Credit Cooperatives in 2016 and had the opportunity to reach consumers directly through the Butka brand in cooperatives and stores affiliated with Agricultural Credit Cooperatives (Ekmen, 2018).

Also, The Pazar Tea Cooperative in Rize, established in 1946 with 14.500 partners, aimed to offer its partners the most suitable fertilizer types according to the developing technology conditions (Ekmen, 2018).

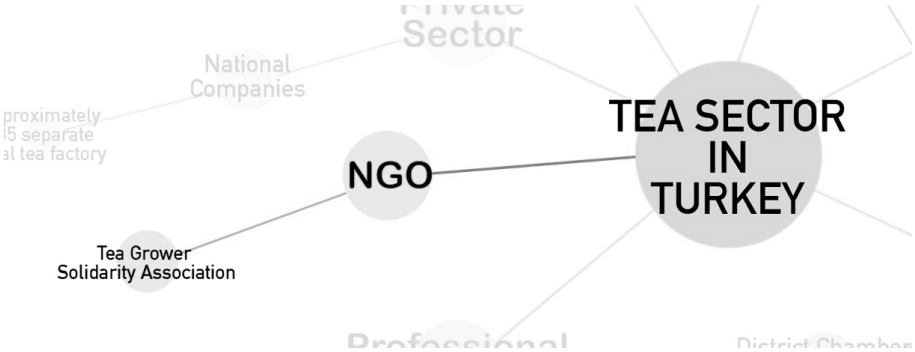


Figure 5.9. Non-Governmental Organizations

As for the NGOs, Tea Growers Solidarity Association (ÇAYÜDAD), located in Rize, operates on behalf of the farmers in the market along with Agricultural

Development Cooperatives and Producer Unions. Currently, there are three tea producer unions in the Ardeşen, Derepazarı, and Fındıklı districts of Rize. However, tea industry workers do not yet have a comprehensive and robust association.

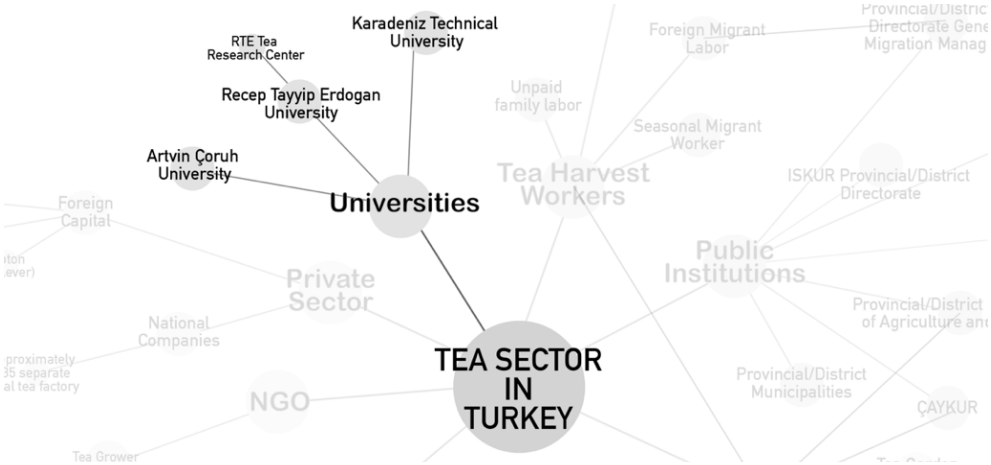


Figure 5.10. Universities

Universities in the Eastern Black Sea region serve as supporting institutions for the need for qualified personnel and research activities in the tea sector. For instance, the 'Tea Expertise' program was opened at Karadeniz Technical University in 1983. Today, this program operates in Recep Tayyip Erdoğan University Technical Sciences Vocational School with the name of 'Tea Agriculture and Processing Technology' in Rize. The program aims to train the intermediate workforce to work on tea farming, determination of tea areas, purchasing of fresh tea, processing, analyses of fresh and dry tea, and marketing of the tea. Therefore, students who graduate from the program receive the title of Tea Technician and can work as tea experts in the sector.

In addition to being academically associated with the sector through the program, the university also conducts research activities on tea at the Tea and Tea Products Research and Application Center established within the university with the Regulation published in the Official Gazette dated 09/10/2017 and numbered 30205.

Besides Recep Tayyip Erdoğan University, Karadeniz Technical University is also related to the sector. Similar to Recep Tayyip Erdoğan University, Karadeniz Technical University has a Hazelnut-Tea Application and Research Center that

conducts research activities on tea. Additionally, the center conducts studies on hazelnut, which is the other main agricultural livelihood of Trabzon province.

As can be seen, the tea industry in the Eastern Black Sea Region includes many different actors, from public institutions to universities. These actors, interacting with the sector, have essential functions and capabilities to shape the future of the tea industry. In the following parts of the thesis, these actors will be evaluated in the context of regional development, and the strategies they developed in the process of incorporating into global production networks and their effects will be examined.

5.2 Production Segments in the Production Network of Tea in Turkey

In GPN 2.0 framework, production segments are essential since the engagement between lead firms and significant value capture nodes take place in these segments. In production network of Turkish tea industry, four main production segments are identified: (A) cultivation and harvesting of fresh tea leaves, (B) non-packaged dry tea production, (C) manufacturing of branded packaged tea, and (D) the distribution of branded tea products into points of sale.

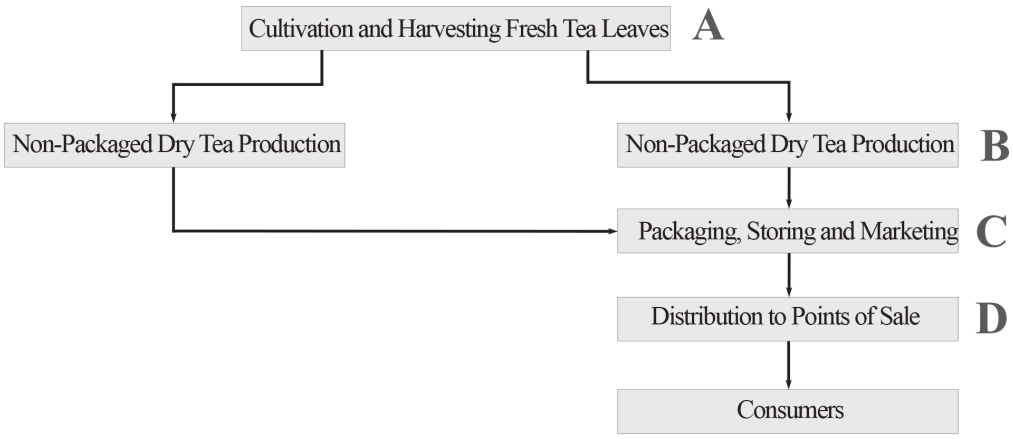


Figure 5.11. Value-Creation Segments in the Turkish Tea Sector

5.2.1 Cultivation and Harvesting of Fresh Tea Leaves

The tea production process begins with the cultivation of tea plants and the harvesting fresh tea leaves that are grown. As mentioned earlier, tea growers and tea harvest growers are the main actors that carry out activities related to cultivating and harvesting fresh tea leaves. In addition to these activities, they also accomplish the care of the tea plants and the post-harvest activities such as forming plucking tables (Çaymer, 2017).

The producers are mainly smallholder farmers in Eastern Black Sea Region. The activities that these producers carry out are illustrated in Figure 5.12.

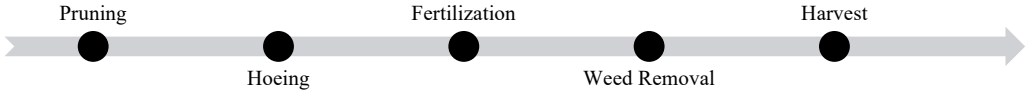


Figure 5.12. Tea Cultivation Process

Pruning is the essential method that increases the quality and fresh shoot production in the tea plant. The method should be applied at the appropriate time and using proper techniques to benefit from the process. The fresh shoots that grow after pruning tend to have high growth capability and become rich in quality elements. Most importantly, the dry tea obtained from those shoots is of high quality in that production.

Figure 5.13. Pruned Tea Plants

In the region, the pruning process has been carried out since the Council of Ministers Decision No. 93.5096 was implemented in 1994 to improve the tea gardens and ensure the production of high-quality tea. This decision aims to prune the gardens at a rate of one-fifth every year and compensate the producers for the loss of income caused by pruning (Çaykur, 2019). During this process, many agricultural engineers and tea experts were employed to carry out the pruning in the most accurate and fastest way, and these staff carried out pruning (Türkyılmaz, 2015). The tea fields, determined as 893.454 decares in 1992, were measured again by the relevant personnel, and the producers pruned one-fifth of their tea fields with the expertise of engineers and experts.

However, it cannot be said that these measurements made in line with the Decree did give accurate results. This is mainly because producers' declarations were taken as a basis while measuring some areas, and some did not want to provide accurate information for various reasons. For instance, some wanted to show their tea areas wider than they were to get more quota in tea purchases.

In contrast with them, some wanted their tea areas to be recorded as being smaller than it was in order to avoid the necessity of pruning. It is seen that the re-determination and renewal of licenses carried out within the scope of the Decree No. 5096 were concluded mainly by 1994. The increase and decrease in the tea areas in 1995, 1996, and even 1997 is due to the completion of the missing detection procedures that were not done for various reasons and the correction of the mistakes made during the previous measuring (Türkyılmaz 2015).

Council of Ministers Decision No. 2011/2526 on the compensation of the loss of income suffered by the producers due to the pruning was published in Official Gazette No. 28156, dated December 28, 2011. The Decree, which would be valid for ten years, entered into force on 01.01.2012 (Çaykur, 2019a). Following the ending of the validation of the Decree, it was decided to put in effect the 'Decision On Compensation For The Loss Of Income Suffered By The Producers Due To The Pruned Teapots For The Purpose Of Supplying Quality Tea Leaves' on March 10,

2022. With this President's Decision, it has been decided that licensed tea gardens will be subject to rejuvenation pruning at a rate of one-seventh each year for seven years.

Another sub-activity in the cultivation process is fertilization. Fertilizer is one of the most critical inputs used by farmers to cultivate and care for tea plants. Producers are provided with their agricultural needs, particularly fertilizers, through the agricultural development cooperatives, the most crucial farmer organizations in the sector.

There are approximately 220.000 fresh tea producers producing fresh tea leaves. Some producers are salaried workers in tea processing factories or other businesses. These employees purchase dry tea from the firms in exchange for fresh tea leaves obtained from their own fields. These clearing transactions constitute 1% of the dry tea purchases in the sector. Most workers in the tea sector that work in factories are men. Women generally work in picking fresh tea leaves in tea gardens or administrative and packaging processes in businesses. Along with cultivation and harvesting, tea producers are also responsible for delivering the fresh tea leaves to the collection center, where the harvested fresh tea leaves are stored before being transferred to factories (Çaymer, 2017).

The related municipalities or headmen undertake the establishment of collection centers. It is critical to have these centers in every village where tea is cultivated due to the necessity of processing the collected tea as soon as possible. Consequently, some villages even have more than one collection center based on the size and location of their tea fields.

Figure 5.14. Çaykur Collection Center, Rize/Pazar/Kocaköprü Village

Figure 5.15. Lipton Collection Center, Rize/Pazar/Kocaköprü Village

Based on the related regulations, producers cannot bring and sell their fresh tea leaves at the purchasing places anytime they wish. They have daily appointment days assigned to them and form their daily quota. This regulation poses a challenge for both producers and the sector. The appointments for each producer are generally once or twice days a week. The tea leaves that the producers bring to the collection centers are weighted and controlled by tea experts to eliminate the ones that do not

conform to the established standards. In this process, particular attention is paid to the appearance of the tea if it meets the two leaves and one sprout standard. No further inspection is made in purchasing transactions (Çaymer, 2017).

5.2.2 Non-Packaged Dry Tea Production

As mentioned in the heading numbered 3.2.1., several methods can be used for tea processing. The black tea production method of Çaykur will be explained in detail to illustrate such a process.

Since its establishment, Çaykur has been producing black tea using the Orthodox Method, which is widely used worldwide along with the CTC method. However, in addition to these two methods, the institution has renewed and changed its processing system and unveiled a unique Çaykur Method. It is claimed that tea production is carried out faster and more efficiently through this new method compared with the previous method (Kılıç, 2014).

Çaykur method is distinguished from the rolling and grading steps of Orthodox and CTC methods. While machines that make cutting, tearing, and curling movements during the bending phase are used in the CTC method, the rotorvane is used in the bending phase of the Çaykur method (Çimen, 2014). In Çaykur black tea processing system, 5-6 rolling machines, a rotorvane, two press or core rolling machines, and 1-2 green tea sieves are generally used. The fresh leaves that arrive at the tea factory are directly taken to the withering layers via conveyor belts (Kılıç, 2014).

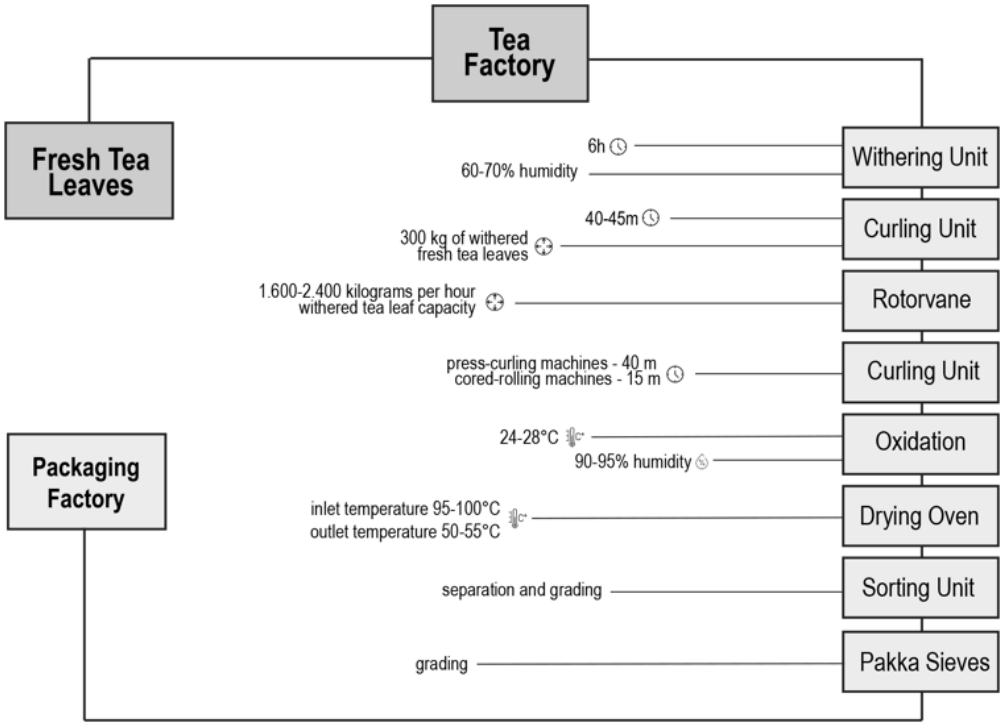


Figure 5.16. Tea Processing by Çaykur Method

The fresh tea leaves brought to the factories go through the withering process in the first step of processing. The withering process reduces 70-80% of the water contained in fresh tea leaves to 50-55%. The process, the first and most crucial step of black tea production, is entirely mechanical in the first step of processing. The withering process reduces 70-80% of the water contained in fresh tea leaves to 50-55%. The process, the first and most crucial step of black tea production, is entirely mechanical (Artık & Poyrazoğlu, 2017; Kılıç, 2014). The primary purpose of the process is to give the tea leaves an elastic structure for the curling process by making the tea leaves more concentrated before the curling stage since the fresh leaves are likely to break rather than curl if they are directly curled without wilting. Drooping, sluggish, and withered tea leaves generally indicate a well-wilting process. Additionally, tea leaves should not be lively and bright, and the stems can be bent without breaking after the withering process (Artık & Poyrazoğlu, 2017).

Figure 5.17. Withering Process in Tea Factory (*Orçay*, n.d.)

Through the withering process, the paving thickness is automatically adjusted to the desired amount utilizing the spreaders located at the entrance of the withering troughs. During the withering on the continuous tracks, the tea leaves are mixed with the automatic mixers to ensure that the withering takes place correctly. The withering lines are blown with air that does not exceed 32°C. The temperature is adjusted by thermometers placed on the withering lines, and the air, which has become saturated due to evaporation, is thrown out with aspirators and frequently opening the windows opposite (Kılıç, 2014). The air temperature given to the withering lines is adjusted so that it does not exceed 38°C at low altitudes and 32°C in high regions. If the temperature is high, the drying and burning of the leaves occur. The curling and fermentation of dried and burnt teas are not preferable since the quality of the tea to be obtained from them will be extremely low.

Along with the air temperature, the humidity in the withering unit is another crucial factor in the process. The relative humidity in the unit is set to 60-70%, and withering is usually complete within six hours related to the freshness and wetness of the fresh tea, weather, and working conditions. The tea leaves, placed on the withering lines in order, are discharged in the same order. Without waiting, the wilted tea leaves are transferred to the curling machines as soon as possible (Artık & Poyrazoğlu, 2007; Kılıç, 2014).

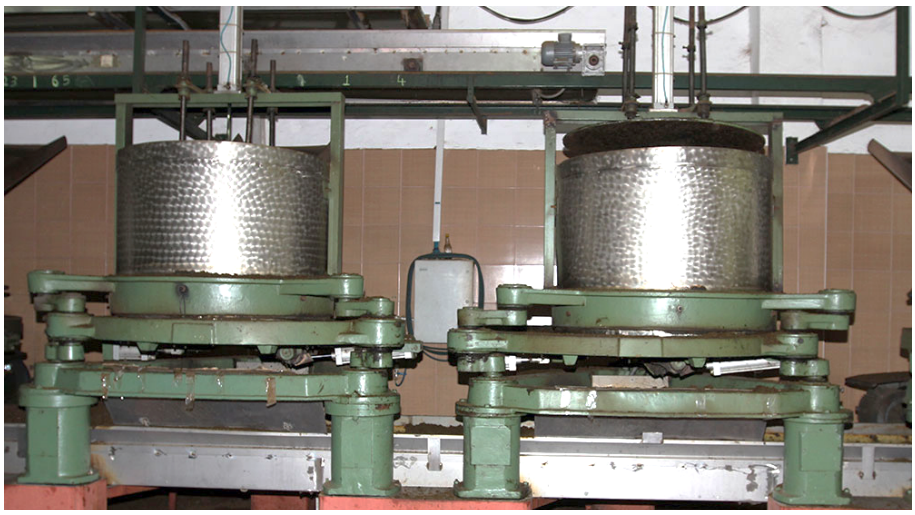


Figure 5.18. Curling Machines in Tea Factory (Orçay, n.d.)

The curling process takes place after withering. The primary purpose of curling is to extract the sap from the cells and infuse it into the curled tea leaves without breaking (Çimen, 2014). The first curl (flat curl) takes at least 40-45 minutes. Typically, 300 kilograms of withered tea leaves are delivered to the regularly fed curling machines. At the end of the process, the curling machine is emptied regularly within 5-6 minutes, and the curled leaves are sent to the rotorvane by conveyor belts. After the curling machines are emptied in the curling unit, the curling tables are cleaned with the compressor. Then, all the machines and the curling unit are thoroughly cleaned after the shift (Kılıç, 2014).

Withered and curled tea leaves are torn and crushed in the rotorvane. The withered tea leaf capacity of a rotorvane machine is 1.600-2.400 kilograms per hour. The rotorvane must be fed continuously and regularly for efficient use. Consequently, the tea leaves from the curling are transported to the rotorvane by a conveyor belt without waiting. Leaves from the rotorvane are sent to fresh tea sieves with conveyor belts (Kılıç, 2014).

Tea leaves sieved and ventilated in fresh tea sieves are subjected to a second curling process. This process ensures that coarse leaves not sufficiently shredded in the first curl are further shredded in press-curling or cored-curling machines. Thus, better fermentation conditions are arranged by cracking the cell membrane of the leaf and

removing the cell sap inside (Artık & Poyrazoğlu, 2007). This process takes 40 minutes in factories operating with press-curling machines and 15 minutes in factories with cored-curling machines (Kılıç, 2014). Pressing is applied to the tea leaves in the press rolls at least three times during this period. Presses apply a pressure of 200-300 pounds. It is operated for 5-6 minutes with a press and 5-6 minutes without a press. Thus, the tea's temperature, which is heated due to excessive friction during pressure, is reduced (Artık & Poyrazoğlu, 2007). The curled-up tea leaves are discharged from the machines and passed through the rotorvane in factories with a rotorvane with conveyor belts, after which they are ventilated in fresh tea sieves and transferred to the continuous oxidation unit (Kılıç, 2014).

The oxidation process starts in curling and continues in the oxidation unit. The tea enzymes that emerge from curling initiate an enzymatic reaction and cause chemical changes in the tea leaves (Yılmaz, 2019). The tea leaves are kept at the appropriate temperature and relative humidity to achieve the desired oxidation level. Optimum oxidation conditions are fulfilled at 24-28°C and 90-95% relative humidity (Kılıç, 2014). The main aim of the process is to obtain desired color, smell, shine, and aroma in dry tea. The first quality control in tea production is done during this process (Önçırak, 2019). Through this control, information is obtained about the adequacy and accuracy of the wilting and curling processes (Yılmaz, 2019). After oxidation, the oxidized tea leaves are transferred from the oxidation unit to the drying unit without delay (Kılıç, 2014).

During the drying process, the black tea is subjected to a temperature of 95-105°C for 24-27 minutes in the Marshall types of drying ovens. In this process, particular attention is paid to ensuring that the inlet temperature of the drying oven is between 95-100°C and the outlet temperature is between 50-55°C. The rotating winged spreader is used to ensure that the tea leaf given to the feeding band of the oven is spread evenly, that there is no gap between them, and that there is no piling up. This process reduces the moisture content of the tea leaf from 45-50% to 3%, and the black tea that is produced becomes storable, packaged, and portable. The temperature of the air entering the oven, the flow rate, the thickness of the leaves on the pallet,

and the duration of the tea in the oven directly affect the quality and durability of the tea (Kılıç, 2014).

Figure 5.19. The Drying Process (Orçay, n.d.)

5.2.3 Packaging, Storing and Marketing of Tea

Teas that come from the ovens are not homogeneous and have different particle sizes and densities. Therefore, a certain classification and standardization are required (Çaymer, 2018). For this, the dry tea coming out of the oven is sent to the sorting unit, where the separation and grading are done. In the sorting unit, dry teas are separated based on the standard sizes and qualities by using two types of sieves called Midilton and Pakka. In order to provide a standard in tea classification, the teas sieved by back-and-forth vibration in machines that have 8-10-12-20-30 mesh sieves at 2.5 centimeters from top to bottom are divided into seven different qualities. The trash, fiber, and other materials in the tea are separated in this unit by passing it through a series of fiber holders. Fiber, garbage, dust, and other similar materials are separated from the tea by static electricity generated in the fiber holders, and the tea is cleaned of these substances (Kılıç, 2014). The process separates dry teas based on their fineness, thickness, and quality. Along with these, only teas with a moisture content of 2-4% can be classified as qualified for consumption (Artık & Poyrazoğlu, 2007) since the teas containing moisture at a rate other than these rates are harmful to human health. Accordingly, having less than 2% of moisture in the tea indicates

that the tea is burned, and more than 4% of moisture indicates that there will be mold in the tea (Yılmaz, 2019).

In the sorting process, tea is collected in two classes based on particle sizes: manufacturing shards and broken teas. Teas that come from drying and are sifted without processing are called 'manufactured shards'. On the other hand, the 'broken teas' are the teas that remained on the number 8 and 10 Pakka sieves and crushed and re-sifted through the Midilton sieve. The tea remaining under the number 30 sorting sieve is called Number 7 tea (Kılıç, 2014).

After coming out of the oven, the teas are sieved first through the Midilton sieve and then through the Pakka sieves. In this way, a particular class of teas with the best quality is obtained. However, the coarse teas are not sifted in this classification. Therefore, they are passed through the crushers and the same classification system again. The classified large-grained teas are called 'leaf teas', while small-grained teas are called 'broken group', 'fannings group', and 'powder teas' (Çaymer, 2017). The classification system of the Çaykur method can be seen in Table 5.2.

Table 5.2. Classification System of Çaykur Method

Tea Kind	Degree	Terminology
1	Manufacturing Shards	Fannings (F)
2	Manufacturing Shards	Broken Orange Pekoe (BOP)
3	Manufacturing Shards	Broken Orange Pekoe (BOP)
4	Broken Teas	Fannings 2 (F2)
5	Broken Teas	Broken Orange Pekoe (BOP)
6	Broken Teas	Broken Pekoe (BP)
7	Powdered Tea	Dust (D)

Teas graded and bagged as described above are stored according to their grade and production date. Graded teas, subjected to humidity control in packaging factories, are once again passed through fiber holders, then blended and packaged (Kılıç, 2014). Control of the humidity rate of dried tea is essential for the final product since a humidity rate of up to 66% is the main reason for the deterioration of tea. Hence,

all packaged teas must be thoroughly dried before packaging. The dried tea can be preserved for a maximum of one week before packaging (Yılmaz, 2019).

Besides Çaykur, a significant portion of the factories produces dry tea using the orthodox method after purchasing fresh tea leaves. Few factories use the CTC method for producing dry tea. Additionally, some factories use both methods. After going through the processing stage by these methods, the dry teas are prepared for sale (Çaymer, 2017).

On the other hand, the remaining do not go through the packaging stage and sell the unpackaged tea they produced to the other firms in the form of bulk tea. However, these firms that sell semi-finished products, such as bulk tea, only constitute around 2% of the firms operating in the sector. The majority of the factories choose to market their products under their own brands (Çaymer, 2017).

5.2.4 Distribution to Points of Sale

The dry tea produced in the factories is mainly consumed in the domestic market, with a 98% share. Therefore, only 2% of the produced tea is exported and sold in foreign markets in the Turkish tea sector. The sales abroad are mainly carried out through online platforms such as the firms' websites. Furthermore, some firms sell their tea to Turkish firms operating abroad. 65% of the tea produced by firms is sold to retail chains and markets since more than half of the produced tea is consumed at homes or in common consumption areas in the domestic market. Since firms usually sell their tea by packaging them under their owned brands, bulk tea is sold in small quantities. The firms that produce bulk tea mostly make wholesalers. The sales to common consumption places, such as coffee shops, restaurants, and hotels, constitute 45% of the total sales. Also, the tea firms carry out wholesale sales directly to some common consumption places such as coffeehouses. In some of these common consumption places, such as hotels, consumers are offered a wide variety of teas, including imported teas (Çaymer, 2017).

Packaged teas produced by Çaykur are sold in the domestic market through its seven Regional Directorates of Marketing and two Regional Directorates of Marketing and Production, operating in nine provinces with a strategic position in tea distribution. Each Regional Directorate of Marketing established in these provinces is connected to a hinterland of surrounding provinces. Also, a certain number of dealerships are determined for each province (Çaymer, 2017)

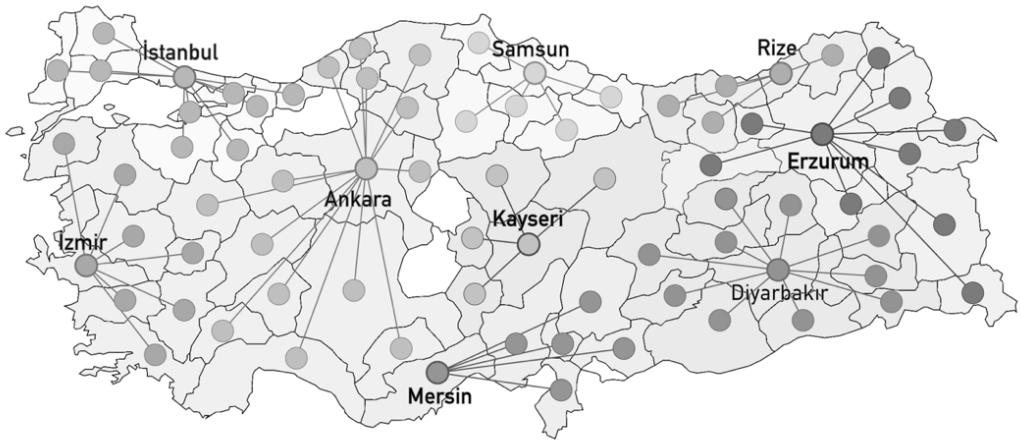


Figure 5.20. Distribution Networks of Çaykur

Çaykur produces tea in accordance with the Turkish Food Codex Black Tea Standard and puts it on the market under its own brand with its unique packages and names. The tea products that Çaykur produces are offered for sale at the wholesale prices that the firm has determined. The firm sells its products to its dealers directly and to its fixed dealers operating in the status of a chain of stores through dealers or organizers. In recent years, firms in the status of hypermarkets and chain stores have made significant progress in the retail sector, either individually or through mergers. They have increased their domestic market share to approximately 40%. On a product basis, chain stores can be sole sellers against producer firms and demand a share from many in-market activities such as shelf price. Therefore, few tea firms in national retail chains have tea brands they own. Tea brands with the highest sales in national retail chains also have Regional Directorates, similar to the marketing organizational structure of Çaykur (Çaymer, 2017).

Both public and private sectors are active in the tea market since tea is a product demanded and consumed by all segments of society at high levels in Turkey. As stated before, black tea is the most popular tea kind. Following black tea, green tea comes second in popularity and consumption. The other tea kinds consumed besides black and green tea are yellow, white, instant, and oolong tea. Firms generally prefer two different ways of marketing their tea. Accordingly, some firms put their teas under their brands on the market.

After the activities specified in the tea production process are fulfilled, the processed teas are sold following the packaging processes. In cases when the produced teas by firms (from Production Segment C) become insufficient, firms purchase bulk tea from the firms (from Production Segment B) that produce tea as a semi-finished product. Afterward, they sell this tea by blending it with the tea they produce. Since black tea is the most preferred type of tea in Turkey, 90% of the teas that are produced are black tea, and the rest is produced as green and white tea. While green and oolong teas are used mixed and blended in tea bags, only a few firms sell oolong tea without mixing it with anything (Çaymer, 2017).

All of these activities in tea production are carried out by several actors in the sector with complex relations among them. Accordingly, in the next section, the complex relations between these actors will be attempted to investigate, and the strategies of these actors will be determined.

5.3 Competitive Dynamics of the Turkish Tea Industry

The global tea market has a dynamic structure that constantly interacts with many internal and external factors. As subject to this dynamic structure, lead firms in the tea sector have endeavored to enhance and upgrade their position within production networks and their ability to manage the risks presented by the external environment. Along with these risks, the GPN framework acknowledges three competitive dynamics as essential causal conditions underlying the actor-specific strategies used

when configuring production networks. These competitive dynamics in this context are determined as the cost-capability ratio, market imperative, and financial discipline. Together with the risks, these dynamics significantly affect lead firm strategies in the contemporary tea GPN. Therefore, exploring these underlying competitive dynamics is important.

Firstly, it is necessary to mention the existence of the supply-demand imbalance in the Turkish tea sector, mainly caused by the unplanned tea garden constructions in the region and the lack of capacity planning in the tea factories. While the cost of raw materials in the tea-producer countries is 60-65%, it is around 75-80% in Turkey (RTB, 2022). This difference in raw material costs is mainly due to the fact that tea harvest times in Turkey differ from other tea-producing countries. While tea production can only be carried out half the year in Turkey, tea is harvested for 12 months abroad (Çaymer, 2018). This is a significant disadvantage for both producers and factories. For the factories, storing the tea produced in summer and selling it in winter is one of the challenges of the sector. On the other hand, it is an even more significant challenge for the producers who depend solely on tea production for livelihood.

Besides the raw material costs, labor and other inputs also cost relatively high in the Turkish tea sector. Additionally, more than 50% of government support is provided for fresh tea in some tea-producing countries. The fact that the production costs are much higher in Turkey than in other countries, the country is in a significantly disadvantaged position in price competition in the tea market (Çaymer, 2018). Based on the high production costs, the cost-capability ratio of the sector is also high, which makes global lead firms from mid and downstream segments mostly reluctant to get involved in tea farming in the region. For this reason, the global lead firms generally prefer to outsource the production activity where the labor-intensive smallholder mode of production cost is cheaper than in Turkey.

The Turkish tea industry should improve its capabilities and acquire new ones to reduce the cost-capability ratio, given the industry's high production costs. Since tea

production is labor-intensive, it is crucial to organize and manage the actors in tea farming as the first step. However, as tea farming is mainly carried out by smallholder farmers not associated with tea estate plantations in the country, increasing labor productivity usually cannot be done at the firm level. Also, when the out-migration and changing patterns in the workforce are taken into account, it can be concluded that the trained labor availability and labor turnover have been decreasing in the region. In addition, one of the biggest problems is the inadequacy of supervision and control in tea production, which was also mentioned by most firms interviewed.

In terms of institutionalization, it can be said that most firms in the sector are not in a powerful position. The low level of institutionalization is mainly related to the fact that almost all business and transactions within the sector are carried out in the traditional family business structure (Çaymer, 2018). The lack of institutionalization capacity is also stated as one of the sector's shortcomings during the interviews conducted in the field.

As for the production features of the region, it is seen that the firms in the sector generally produce standard black tea. Only a few firms have sufficient production lines for diversifying production. While the number of these firms is not much, their market share is mainly high, indicating the need for SMEs to improve their production structures.

Lastly, the technological capabilities of the firms need to be considered concerning the cost-capability ratio. In contrast with the labor-intensive nature of fresh tea production, turning fresh tea into processed dry tea is a technology-intensive activity. According to the needs analysis study that TRAC Project team conducted with 40 SMEs, 12,5% of the firms have old technology and the machinery and equipment they have are stated as unreliable, 15% of the firms do not benefit from information technologies, and most of the firms (77,50%) lack new product development and R&D capabilities (Çaymer, 2018). Consideringly, it can be said that the technological capabilities are not high enough in the region. During the firm

interviews, the insufficient level of technological capabilities of the firms was also mentioned, and it was stated that the firms in the region generally do not follow technological and innovational developments related to the sector.

The second competitive dynamic, market imperative, is defined as a complex and negotiated result of the producer-customer interface that emerges from the active participation of producers and customers in market creation. Hence, the concept approaches the creation and shaping of the market structure as a dynamic result of the negotiations between producers and customers in the sector instead of a passive response of them to external factors (Coe & Yeung, 2015). In these interactions, the producers and customers have their own interests in the negotiations. The interest of consumers is mainly related to their demand for higher-quality goods at lower prices. At the same time, the producers are keener on the increased market revenue and expansion profits (Hafid, 2017).

In order to gain a competitive advantage, knowledge of domestic and foreign market conditions is one of the most important factors affecting the tea sector's competitiveness (Kurt, 2018). In the scope of the analysis, when firms were asked about their competitors, they generally pointed to firms with similar capacity or spatial proximity.

While some firms see all firms in the sector as competitors, firms that make small-scale production and prioritize the product's quality rather than the product's quantity stated that they do not see other companies as competitors due to the difference in their scale and consumer masses. Apart from this, competitors in the sector may also vary according to the type of tea produced. For example, a company that produces tea bags sees companies that produce tea bags as competitors. Consequently, it is not likely to mention a high level of competition among the firms. Considering the dynamics of global production networks, this perception of competition can be perceived as unfavorable.

Today, strong consumer acceptance is considered a significant factor promoting the growth of tea. The beverage is the most consumed beverage after water, particularly

in Asia and Europe, where people drink tea daily is quite prevalent. Also, owing to the affordability of tea, all socio-economic groups can consume the beverage. The fact that tea is accessible to the general populace, the majority of whom are low-income groups, has been a significant factor in the growth of the tea market in many developing and emerging economies such as East Asia, Africa, the Caribbean, Near East and Latin America (FAO, 2022; Imarc, 2022). While tea consumption is increasing, tea intakes have been declining in the more mature European markets and other advanced countries (FAO, 2022).

Turkey has a sizable global market share as one of the world's leading tea producers. In the country, a consumption habit runs parallel to tea production. To illustrate, Turkey produced 275.000 tons of processed tea fully consumed in the country in 2020. Considering the Covid-19 pandemic and the restrictions it brought, such as lockdowns and curfews, the consumption of tea did not experience any decline. In fact, a person in Turkey drinks approximately 1.300 cups of tea annually (Hürriyet, 2021). Therefore, when this consumption level is multiplied by the 85 million population of the country, it can be seen that Turkey is one of the largest black tea markets in the world.

Even with this high level of demand, tea firms need to tackle the pressures of the customers in terms of pricing and quality. While Çaykur was the only dry tea producer in the region until 1984, it had no competitors. However, with the industry's opening to the private sector, many firms have entered and increased the market competition. Today, foreign market players Unilever and Doğadan together have a market share of 24%. The fact that this ratio has not changed significantly in the last few years shows that they maintain their current share in the market. Such foreign capital firms are crucial for the sector since they stimulate the competitive environment (Çaymer, 2018). Due to the competitiveness in the sector, delivering the product to the end market in the quickest way, has become central for firms in order to capture the greater the initial value.

While some firms see all firms in the sector as competitors. Firms that make small-scale production and prioritize the quality of the product rather than the quantity of the product stated that they do not see other companies as competitors due to the difference in their scale and consumer masses. Apart from this, competitors in the sector may also vary according to the type of tea produced. For example, a company that produces tea bags sees companies that produce tea bags as competitors. Consequently, it is not likely to mention a high level of competition among the firms. Considering the dynamics of global production networks, this perception of competition can be perceived as unfavorable.

Today, strong consumer acceptance is considered a significant factor promoting the growth of tea. The beverage is the most consumed beverage after water, particularly in Asia and Europe, where people drink tea daily is quite prevalent. Also, owing to the affordability of tea, the beverage can be consumed by all socio-economic groups. The fact that tea is accessible to the general populace, the majority of whom are low-income groups, has been a significant factor in the growth of the tea market in many developing and emerging economies such as East Asia, Africa, the Caribbean, Near East and Latin America (FAO, 2022; Imarc, 2022). While tea consumption is increasing, tea intakes have been declining in the more mature European markets and other advanced countries (FAO, 2022).

As one of the world's leading tea producers, Turkey has a sizable global market share. In the country, a consumption habit runs parallel to tea production. To illustrate, Turkey produced 275.000 tons of processed tea which were totally consumed in the country in 2020. Considering the Covid-19 pandemic and the restrictions it brought, such as lockdowns and curfews, the consumption of tea did not experience any decline. In fact, a person in Turkey drinks approximately 1.300 cups of tea annually (Hürriyet, 2021). Therefore, when this consumption level is multiplied by the 85 million population of the country, it can be seen that Turkey is one of the largest black tea markets in the world.

Even with this high level of demand, tea firms need to tackle the pressures of the customers in terms of pricing and quality. While Çaykur was the only dry tea producer in the region until 1984, it had no competitors in the sector. However, with the opening of the industry to the private sector, many firms have entered the market and increased the market competition. Today, foreign market players Unilever and Doğadan together have a market share of 24%. The fact that this ratio has not changed significantly in the last few years shows that they maintain their current share in the market. The existence of such foreign capital firms is crucial for the sector since they stimulate the competitive environment (Çaymer, 2018). Due to the competitiveness in the sector, delivering the product to the end market in the quickest way, has become central for firms in order to capture the greater the initial value.

Although the size of the supply is important for the economy, product diversity is of great importance in terms of capturing value. While tea is consumed all over the country today, the demand for different types of tea in the market has been increasing. For this reason, it is very important in terms of competitiveness that the regional firms can respond to this demand that diversifies based on the socio-economic contexts. However, the firms in the sector are mainly in a weak position in terms of diversifying production.

Since the 2000s, a transformation process towards agricultural policies has been taking place in Turkey due to internal and external dynamics. Particularly, the obligations brought by the World Trade Organization Agriculture Agreement, the EU harmonization process, and the agreements with the IMF and the World Bank are the external dynamics that trigger this process (Güresinli, 2015 as cited in Yüceer et al., 2020). Hence, these external dynamics have great ability to shape today's agricultural policies. However, some developments and factors related to the country have also been effective in changing of national agricultural policies. The current account deficit and increasing foreign debts, the financial burden on a budget of the supports within the country, the ongoing structural problems in the agricultural sector, and political impotence are among these dynamics within the country (Ataseven, 2020 as cited in Yüceer et al., 2020).

As for the tea sector, the most significant of the policies developed in this context is the application of the base price, which is one of the most important policies developed in this context. When the economic and social position of tea in the region taken into account, the importance of the pricing of the fresh tea product can be understood. Since the geographic and climatic attributes of the region do not offer much for the livelihood of the people in the region, most of them depend on the tea sector. Therefore, price policies affect the producers in direct ways (Başer, 2006).

While Çaykur sets a price for tea purchasing every year, private firms do not have any specific price policy, according to the interviews. All of the firms determine their purchasing prices according to the market conditions. This often turns out to be a disadvantage for producers since the private sector tends to determine prices that are lower than the prices of Çaykur. The private sector buying tea at low prices, which is the most complained about by the producers, is seen as a practice that the private sector has to do to avoid a loss. Private firms believe there is not enough change in dry tea prices compared to the support for fresh tea. Therefore, they justify their prices as an attempt to close the gap between dry and fresh tea prices.

The dominance of Çaykur in the domestic market can be regarded as unfair competition in terms of the development of the private sector. The institution, which has not made a profit since it was transferred to the Wealth Fund, has made it difficult for entrepreneurs who invest in the sector to hold on to the market. Additionally, the presence of influential foreign investors in the sector and their significant market share in the market are among the difficulties regional SMEs face (Çaymer, 2018). This situation is also mentioned during the interviews conducted in the region. Accordingly, there is a perception that these firms harm small-scale local firms. However, most of the interviewed firms believe that the existence of foreign and large-scale firms positively impacts the region since they increase competition.

In GPN 2.0 framework, these competitive dynamics are considered driving factors of the global production network strategy and a part of the process of specific strategy configurations for actors. Along with these dynamics, some risks interact

with the competitive dynamics in global production networks. These risks can be exemplified as political and social risks, such as demands from labor associations and international NGOs or government political policies. The tea sector's most significant risk is market volatility and economic crisis. Increasing costs, especially in recent years, are effective in the dominance of this view. Apart from this, climatic conditions and disasters constitute other risks. Especially the fact that tea is a plant sensitive to climatic conditions affects the sector negatively. For example, the low amount of rainfall in the region in 2022 negatively affected the yield. From an environmental point of view, coal use by the region's factories is a major problem. In addition, the proximity of the factories to the city and the riverbed causes environmental pollution. Also, the wastes obtained during production are purchased by foreign countries and used. This is an indication that there is a lack of sustainability in the tea sector which is a significant environmental risk to the sector.

As can be seen, these competitive dynamics and risks have the potential to affect the actor strategies in the sector significantly. Consequently, the strategies that the sector actors use under the influence of the dynamics are explored in the following section.

5.4 Actor Strategies

The production process of tea, in its simplest form, consists of the cultivation of tea plants, harvesting the fresh tea leaves, turning the fresh green leaves into dry tea in factories, and presenting it to the consumer. This section briefly explores the activities that make up the tea production process. This exploration is aimed at obtaining information about the fundamental internal dynamics of the Turkish tea industry. Therefore, a review in this direction is done in this and the following section (4.4). Moreover, these internal dynamics, along with external ones, will be detailed in the next chapter.

The discussion that follows focuses on how lead firms interact with each of these activity areas in turn, beginning with the core activity of the lead firm (C), followed

by its relationships with strategic suppliers (B), and then their engagement with distributors and retailers (D), and then with tea producers (A).

In GPN 2.0 framework, the behavior and strategy of the firms are attempted to be understood through four categories of actor strategies, namely intra-firm coordination, interfirm control, interfirm partnership, and extra-firm bargaining. It is argued that each actor strategy results from specific combinations of aforementioned competitive dynamics and risk environments.

The tea farming segment (A) is considered as critical node of agricultural tea production, where lead firms often exert direct or indirect influence. The strategies of lead firms in this segment represent a hybrid typology involving interfirm control and some direct farmer supports within the context of extra-firm bargaining. Tea has traditionally been grown in equatorial regions and areas with microclimates suitable for tea production, such as the Eastern Black Sea region in Turkey. There are mainly two categories of growers for tea cultivation: large tea estates and smallholders. These two categories have different stories behind them in almost all tea-growing countries. For instance, Kenya first met tea through the colonial empires. While the firms carried out tea cultivation at first, the farmers wanted to take part in the sector. Followingly, smallholder tea farming became widespread. Today, most of the world's tea production is carried out by smallholders.

In Turkey, on the other hand, tea cultivation has always been carried out by smallholder farmers who rely mainly on family labor and have diversified livelihoods. While many private tea firms have been established since 1984, smallholders have kept their land and cultivated their tea by themselves. The firms mainly have not been involved in fresh tea production and supply their raw material from the farmers. Currently, there are not any large-scale estates owned by private firms. Based on the firm interviews, it can be said that the firms generally are not interested in upward integration in the production networks and are disincentivized from sinking capital into agricultural production.

As the tea farming segment actors, smallholder producers are considered as firms. Therefore, their strategies are of great importance to the sector. As mentioned in the related chapter, tea farm owners use different methods to harvest their tea. While some of them collect their own tea, they mostly hire paid workers or make arrangements with the sharecroppers. Accordingly, those tea farm owners that do not collect their own tea use different strategies for their activities in the sector.

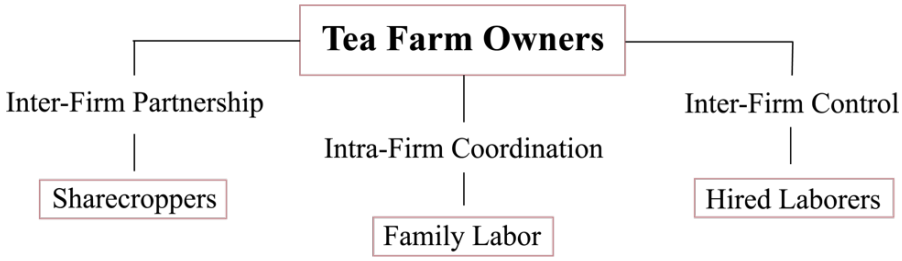


Figure 5.21. Strategies of Tea Farm Owners

The farmers that make arrangements with sharecroppers use an inter-firm partnership to produce fresh tea. Through this strategy, farmers use the labor force of the sharecroppers, and sharecroppers use the land of the farmers. In this type of production, the income earned is usually divided equally between the two parties. Besides the sharecropping method, the farmers also prefer to hire labor for tea plucking. Hired labor distinguishes from the sharecropper since the hired laborers only get paid for their work and do not have rights or any autonomy on the land. Therefore, hired labor is related to the inter-firm control strategy of the firms instead of inter-firm partnership. While the hired labor only receives the daily wage, the income obtained from fresh tea selling in the collection centers belongs to the producer who owns the land. The last strategy that farmers use is intra-firm coordination. This strategy is used by farmers who are relied on family labor.

In Turkey, fresh tea producers are in close relations with the State. The connections are established on several subjects, which can be categorized as tea prices, supports, and policies. As a state agency, Çaykur is seen as an assurance by the producers since they sell their tea to Çaykur at a price determined by Çaykur every year and can make definite sales to Çaykur within the boundaries of the quota applied by the firm.

While the fresh tea purchase amount of Çaykur was 546.970 tons in 2001, it increased to 652.981 in 2011 and 860.383 tons in 2021. This indicates that Çaykur has increased its tea purchase by approximately 58% in this 20-year period (biriz.biz, n.d.). In this case, State uses extra-firm bargaining strategy with the farmers by using Çaykur, as an intermediate.

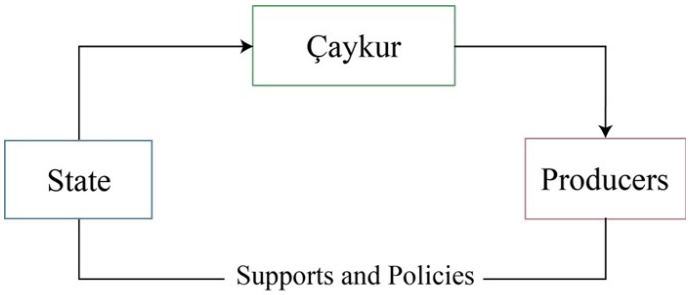


Figure 5.22. Extra-Firm Bargaining in Support Mechanisms of State

State also supports fresh tea producers through two types of support mechanisms as mentioned in the previous chapter. The first one is the pruning compensation provided to the farmers for the income losses caused by the pruning process. In 2019, 228.148 thousand Turkish liras were given to producers in exchange for pruning in 75 thousand decares. The second one is the tea premium. This support is given to the farmers in addition to the fresh tea prices per kilogram. A total of 188 million Turkish Liras were paid to the producers as a tea support premium for 2021.

The tea farm owners usually interact with lead firms in accordance with this inter-firm control in their activities. Through inter-firm control, firms keep in touch with the producers to control their activities and upgrade their tea harvest methods. However, this control process does not require producers to adhere strictly to certain rules. Today, there is no binding legal situation between producers and factories due to the continuation of small-scale production and the lack of contractual production. However, there are also firms that are in constant communication with the producers. Additionally, the appointment system can be used in tea purchases (Akfa Çay, personal communication, September 14, 2019). Hence, it can be said that the interactions with the producers can differ according to the strategies of the firms.

Throughout the field research and firm interviews, it is observed that the nature of the relations between the firms and the tea producers display distinct characteristics in different provinces. For instance, the relations between the firms and the tea producers in Giresun seem stronger than those in Rize and Trabzon. This situation may be due to the fact that there are fewer tea fields and producers in Giresun compared to other provinces. At the same time, the small number of factories may have directed the producers to certain factories. Regardless, this is an indication that there are different dynamics in the sector according to the spatial attributes.

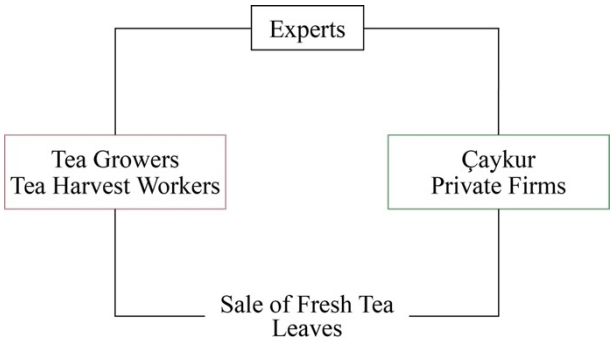


Figure 5.23. Inter-Firm Control Strategy in Collection Centers

As for the process of supplying fresh tea leaves from the tea farmers, the experts have a crucial role as an intermediate. Most of the interviewed firms stated that they do not have any problems with the supply of quality tea owing to the experts working in the purchasing places. On the other hand, the decrease in the motivation of the producers to collect quality tea is also mentioned during the firm interviews. The underlying reasons for this situation are specified as the insufficient maintenance of tea gardens due to the aging of the population and migration, along with the decreased importance attached to tea production by people as a result of the decline in incomes obtained from the activity.

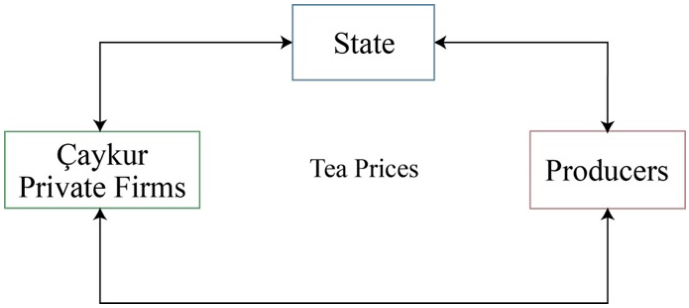


Figure 5.24. Extra-Firm Bargaining Strategy in Determination of Tea Prices

In the determination process of dry and fresh tea prices, the extra-firm bargaining process can take place between the State, the private sector, and the producers. In one of the interviews, it is stated that owing to the support of the State in this tea harvesting season, private firms did not need to buy fresh teas at low prices, and thus the grievances of both firms and producers were eliminated (Doğuş Çay, personal communication, September 14, 2022).

In recent decades, consumer pressures to meet social and environmental expectations have become a strong driver of supply chain traceability and third-party certification back to the farm level. This involves greater on-farm interventions by lead firms to ensure compliance with third-party certification schemes and in-house sustainability programs. Concerning this, some processing firms have increased their engagement with tea farmers. This engagement generally occurs through the interfirm control between the firm and the farmers. However, a training process usually takes place before the controlling process. In order to increase the capabilities of farmers, many firms offer training programs to the producers. The international lead firm, Lipton, is one of the pioneers of this strategy in the Eastern Black Sea Region and has given many pieces of training about sustainable production to tea producers.

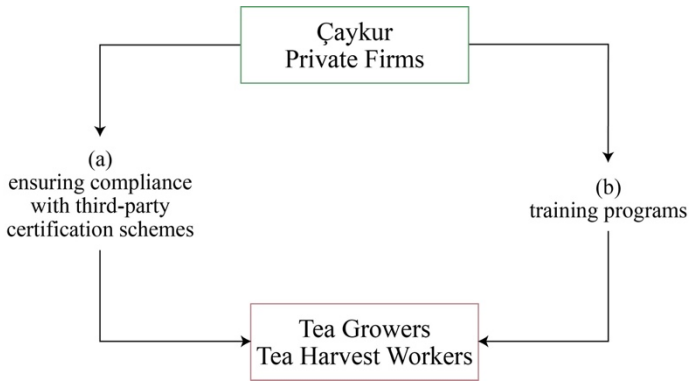


Figure 5.25. Interfirm Control (a) and Interfirm Partnership (b) in Transition to Sustainable Production

As the international lead firm in the region, Lipton stands out in promoting Unilever's ethical values in its products since it is Unilever's highest-profile firm and highly competitive. Unilever's tea supply chain business model builds on traditional retailers such as wholesalers and supermarkets. Unilever, which distributes its products through large retailers, has established a company called UFS specifically for this and positioned the products in all the countries where it sells. This situation illustrates one of the intra-firm coordination strategies of the firm.

Lipton has turned the situation that the tea gardens in Turkey are about to complete their economic life into an opportunity for both itself and the region and has started the sustainable agriculture project. By receiving the sustainability certificate from the Rainforest Alliance within the scope of the project, Lipton became Turkey's first certified tea producer (Tatoğlu, 2017). As a lead firm, Lipton also influences other sector stakeholders on the certification and sustainability subjects. For instance, Akfa Tea Factory, applies a different form of integration into the GPN by adapting to Lipton policies. The firm obtains Rainforest Alliance certification to adjust to Lipton's sustainability policy. This is an indication of the influence of Lipton triggering the transformation within the firms. Accordingly, firms need to switch to sustainable and good agricultural practices in order to sell their tea to Lipton. In this process, Lipton controls related suppliers by using interfirm control.

As the national lead firm, one of the essential strategies of Çaykur is to work on the transition to organic tea farming. The organic product market has been growing globally for the last few decades, and the demand for organic products has increased. Consequently, most developing countries export organic products to various parts of the world. For Turkey, the tea plant has such potential for the country's economy. Organic tea production was first initiated in Sri Lanka in 1983 and has spread to other countries such as India, Tanzania, Kenya, and China. In 1989, the produced organic tea was offered for sale in England. The tea industry, which has a total production area of 2.9 million hectares in the world, produces organic tea in only 5.000 hectares of these areas and produces tea at the level of 4-5 thousand tons per year (Çaykur, 2019).

Despite the increasing demand, there are several obstacles to the development of organic tea production in the world, such as the necessity of chemical control against diseases and insects in the plants, particularly in equatorial regions, the detection of more than 1000 different insects on tea plants in these countries, the length of the transition period to organic agriculture and high costs (Çaykur, 2019). As for Turkey, the climatic attributes, one of the most significant advantages of the sector, creates a potential for the sector at this point. Contrary to other tea-growing regions, the winter season and the snowfall in the region eliminates the necessity of using pesticides against insects.

Accordingly, Çaykur started to work on developing organic tea farming in 2003. As the first stage of the process, organic tea farming areas were determined (Borçka district in Artvin and Hemşin and Çamlıhemşin districts in Rize). In 2006, "Organic Tea Agriculture Commission" was established to organize and develop production (Çaykur, 2019). Following the preparation for organic tea farming, the organic tea farming contracts were signed with 135 tea producers, and the organic tea farming project was launched on an area of 378 decares in 2007. Two years after the launch, the first organic tea factory was established and started to operate in Hemşin.

Several reasons lay behind the decision to determine Hemşin as the pilot region for the organic tea farming project. The most important ones are related to its geographical and ecological attributes. Hemşin has formed a closed basin surrounded by mountainous and forested areas. Also, the ecological condition of the region is suitable for organic tea farming. The second reason is the human capital that the people of the region have. Based on the high education level of the region, the producers are more adaptive and acceptive of new ideas. Thus, they were more willing to switch the organic farming (Çaykur, 2019).

Additionally, the region was familiar with organic production considering their experience in organic honey and egg production. Lastly, there were an adequate number and level of technical staff in the firm with which the producers are affiliated. In addition to ecological and human capital factors, institutional capacity and location also played a role in this choice. The encouragement and support of the district administrators and NGOs were particularly important, along with the location of the region, which makes it the closest to the General Directorate of Çaykur (Çaykur, 2019). In this case, Çaykur used an extra-firm bargaining strategy with State, NGOs, and district administrators to initiate organic tea farming activities.

After these developments, organic tea farming areas have been expanded. Regions such as Muratlı town in Artvin, İkizdere and Çamlıhemşin districts, Tunca town in Rize, Senoz valley in Çayeli district, upper regions of Pazar and Ardeşen districts, part of Çağlayan valley in Fındıklı district, two villages from Of district in Trabzon, two villages in the central district of Rize, and one village from Kalkandere district have participated in organic farming. In 2019, 11.836 producers produced organic tea in an area of 38.088 decares (Anonymous, 2020).

In the transition to the organic tea farming process, Çaykur held information meetings to inform the producers of the benefits of organic farming. Also, the firm has played an essential role in supplying the organic tea inputs required by producers to maintain plant nutrition and soil fertility by contacting significant actors in the sector. The firm also conducts research and development in the research institute,

which is part of the corporation of Çaykur, to encourage the producers to use organic inputs through the more professional use of animal manure and plant wastes (Çaykur, 2019). In these examples, Çaykur uses the interfirm partnership strategy, along with the extra-firm bargaining strategy. Also, the firm uses an inter-firm control strategy through organic tea contracts and the control process to obtain a 'Group Certificate' on behalf of the producers (Çaykur, 2019).

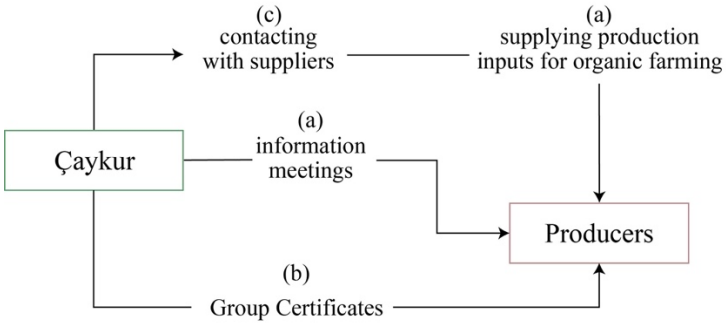


Figure 5.26. (a) Inter-firm Partnership (b) Inter-firm Control (c) Extra-firm Bargaining in Transition to Organic Farming

Although organic tea production in the region has begun under the leadership of Çaykur, the production is not at sufficient levels yet. Based on this, the region's advantage of not needing to use pesticides has not been turned into an opportunity to this day. Therefore, Çaykur aims to grow by finding export markets for the tea it produces (Anonymous, 2020).

The strategies developed by branded and packaged tea producers in order to be included in global production networks and/or increase market share are crucial for the sector since dry tea production is the key node at which the lead firms in the production network create value. Therefore, it is important to explore the relations between the firms producing dry tea (whether they are lead firms or not) with other actors.

Currently, global branded tea manufacturing is dominated by brands like Lipton (Unilever), Tetley (Tata Global Beverages, Twinings (ABF), Taetea Group, Tazo (Unilever), The Republic of Tea, Yorkshire Tea, Dilmah, Bamatea, and Chinatea.

As shown in Table 5.3, branded tea production has spread to various parts of the world, in contrast to fresh tea production, which is generally limited to specific geographical regions due to climatic.

Table 5.3. Top Tea Brands in Global Tea Market (Industry Research, 2022)

Brand	**Country**
Lipton (Unilever)	United Kingdom
Tetley (Tata Global Beverages)	United Kingdom
Twinings (ABF)	United Kingdom
Taetea Group	China
Tazo (Unilever)	United States
The Republic of Tea	United States
Yorkshire Tea	United Kingdom
Dilmah	Sri Lanka
Bamatea	China
Chinatea	China

Even though the majority of the firms given in are headquartered in the United Kingdom, China, and the United States (Table 5.3), branding and manufacturing have become increasingly global operations. Locational decisions of lead firms are mainly contextualized by the requirement to position firms to capitalize on market demand, which is the second competitive dynamic of GPN 2.0. Turkey, as the country with the highest tea consumption per capita, is an attractive market for the tea industry on a global scale. This reveals the need for the region to maximize the benefits of this situation for development under current conditions. As the national lead firm in the Turkish tea industry, Çaykur has the most significant share of the market. The firm, which has been in a different position from other regional firms as a state institution since its establishment, leads the sector in many ways. The firm has been developing various strategies to increase its competitiveness in this direction.

Along with organic farming, Çaykur also carries out research and development activities in order to increase the diversity of its products, a strategy frequently

applied by firms to increase their competitiveness. White tea, known as Emperor's Tea, is one of the products that was strategically begun to be produced by the firm. In 2015, in an area of approximately 800 thousand decares, 1,531 kilograms of buds per season were obtained. The buds used for white tea production were purchased from producers for 300 liras. As a marketing strategy, Çaykur sells white tea to customers through e-commerce rather than selling it to the dealers (AA & DHA, 2015). In this way, Çaykur does not interact with intermediaries and instead uses its own capabilities for distribution by applying an intra-firm coordination strategy.

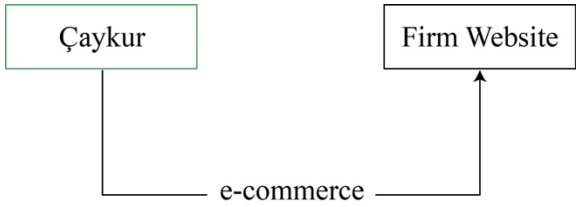


Figure 5.27. Intrafirm Coordination in Distribution Segment

As for diversifying its products and increasing its competitiveness, Çaykur also aims to market black and green tea powder in foreign markets, starting with Germany. Following the initial production of green tea powder in 2019, approximately 4 tons of sales were made in the first year, and the sales amount increased to 6.5 tons in 2020 (AA, 2021).

The tea powder produced by the firm can be used in patisserie products such as cake, pastry, and ice cream in addition to tea (Çaykur, 2019b). The green powder is a powerful antioxidant that has benefits such as beautifying the skin, facilitating digestion, and removing toxins and edema. Considering the trend of access to healthy foods, which is increasingly affecting global consumption habits, it can be said that this product has a high potential to provide added value to the sector.

From production to packaging, all segments of tea powder production are carried out in Çaykur facilities. The firm also works on promoting the product not only in tea but also in other markets. For instance, an agreement was made between Çaykur and an ice cream company for green tea-flavored ice cream. Moreover, one of the dealers of the firm, which has a bulgur factory, is interested in using the powder in bulgur

(Yeni Şafak, 2019). Also, the firm itself produced green tea powdered tahini halva and offered it for sale in Çaykur stores and various markets (Çaykur, 2022). Therefore, Çaykur uses extra firm bargaining and intrafirm coordination to develop the tea powder market.

As mentioned in the previous section, diversifying in production provide opportunities to the firms in the context of market imperative. However, the regional firms mainly produce traditional black tea, and a small number of firms diversify their production. Based on the interviews, most firms know that producing only black tea is a negative situation in terms of competitiveness. In this direction, some firms have started to produce different types of tea, while others continue to work for this. Yılka Çay, for instance, has started to produce green tea in small quantities in order to improve its competitiveness (Yılka, personal communication, September 14, 2022).

In addition to relatively large firms that generally produce black tea in the region, there are also enterprises established by people outside the sector. Lazika, established by a lawyer, is one of these firms. The founding motivation of the firm is stated as the gratitude of the founder, whose education expenses are covered by the money earned from tea production. This differentiated situation of the firm is also reflected in the product variety of the firm. Focusing on producing products with more added value, the firm produces green tea as the main product, unlike many other regional firms. Along with green tea, the firm also produces herbal, iced, and black tea. Moreover, as a boutique firm, Lazika applies a healthy and sustainable model. The firm produces tea bags from organic corn cobs imported from abroad in line with the minimum waste target of the firm (Doğuş Çay, personal communication, September 14, 2022). As a local entrepreneur, Lazika poses an important example of a non-traditional model of tea production in the region.

Additionally, Akkuş Çay Factory has certifications such as Food Codex and TSI. In line with this, parameters such as dust ratio and fiber ratio are controlled in production. Additionally, preliminary preparation has been made for certification on

an international scale. It has been stated that it is necessary to enter into the supervision of international companies in order to obtain the relevant certifications. This illustrates that firms need to be subject to the interfirm control strategy of international firms in order to get related certifications (Akkuş Çay, personal communication, September 14, 2022).

Due to the interfirm partnership developed with Jacobs in 2017, Ofçay has a different quality compared to other companies. Ofçay, who developed a partnership strategy with a foreign firm, Jacobs, stated that the biggest changes experienced in the firm after this partnership took place in matters such as financial improvements, occupational safety, and working hours (Ofçay, personal communication, September 14, 2022).

Some of the firms also receive support from public institutions within the scope of the extra firm bargaining strategy. For instance, Gürçay firm stated that it receives support from the Ministry of Agriculture and Forestry (Gürçay, personal communication, September 14, 2022). Membership in the Chambers of Commerce and Industry in the region is generally seen as not going beyond being an obligation. Some companies stated that they received training from these organizations. However, in general, these organizations have no active participation in the sector.

Among the firms, Doğuş Çay, which has the second largest share in the sector, plays a decisive role in the price determination of the other private firms. This is basically an advantage given to the company by its high tea processing capacity. Doğuş Çay is the most prominent private company with its large share in the sector and tea processing capacity. It was stated that the private sector announces its prices after the announcement of Doğuş Çay, and therefore, Doğuş has a price-setting position in the private sector.

There are approximately 250 tea processing firms in Eastern Black Sea Region. Considering their varied capacities in production and distribution, the ones with limited capacity solely sell their products locally or at a regional scale. On the other hand, the remaining sell their tea in many regions of Turkey and small amounts to

foreign markets. Mainly, the firms follow two different ways in this production segment. Accordingly, some firms put their teas under their brands on the market. On the other hand, the remaining do not go through the packaging stage and sell the unpackaged tea they produced to the other firms in the form of bulk tea.

Most factories market their products under their own brands (Çaymer, 2017). While most firms have their own brands, some sell their teas to other firms in bulk tea form. For instance, Vega Çay sells bulk tea to firms such as Ofçay through interfirm partnership. Therefore, Vega Çay takes part in this case as the strategic partner of Ofçay. Akfa Çay sells bulk tea to private brands such as Lipton and Doğadan and sells the tea it produces to wholesalers and dealers. Due to working with these brands like Lipton and Doğadan, Akfa Çay works on good agricultural practices. The firm also has the Rainforest certificate accordingly (Akfa Çay, personal communication, September 14, 2019).

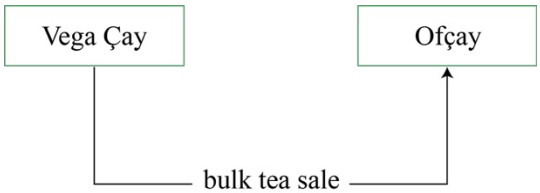


Figure 5.28. Inter-Firm Partnership Between Private Firms

As the national lead firm, Çaykur produces dry tea under the Turkish Food Codex Black Tea Standard and puts it on the market under its own brand in unique packages under different names. The firm sells its products directly to its dealers at the wholesale prices it has determined and to its fixed dealers operating as a chain of stores through dealers or an organizer company. Packaged teas produced by the firm are sold in the domestic market through seven Regional Directorates of Marketing and two Regional Directorates of Marketing and Production, operating in nine provinces that have a strategic position in tea distribution. Each Regional Directorate of Marketing established in these provinces is connected to a hinterland of surrounding provinces. Also, a certain number of dealerships are determined for each

province (Çaymer, 2017). This distribution network of Çaykur is a clear example of the firm's intrafirm coordination strategy.

Çaykur is not the only firm that established its own distribution networks through intrafirm coordination. Besides Çaykur, tea brands with the highest sales in national retail chains, such as Doğuş Çay and Efor Çay, also have Regional Directorates, similar to the marketing organizational structure of Çaykur. As the international lead firm, Lipton has an extensive marketing network greatly influenced by its affiliation with a powerful organization like Unilever.

Most of the produced tea in the Eastern Black Sea Region is distributed through retailers and wholesalers. The national retail chains include the tea brands belonging to the firms and teas sold by them under their own private labels (Çaymer, 2017). For instance, the tea produced by Tirebolu 42 Çay is distributed by wholesalers, and the products are offered for sale in the domestic market (Tirebolu 42 Çay, personal communication, September 14, 2022), and packaged teas produced by Akkuş Çay are sold to chain markets (Akkuş Çay, personal communication, September 14, 2022). Apart from the sales to all provinces of Turkey through its website, Yılka also sells packaged tea in the marketplaces (Yılka Çay, personal communication, September 14, 2022)

There are retail chains that sell tea under their own brands. For instance, tea produced by Karali is packaged and sold under Migros M and Carrefour brands. Moreover, in other national chains, such as A101 or BİM, tea brands belonging to other tea firms are also sold based on occasional agreements between the tea firms and retail chains. In addition, the brands of some tea firms are sold more intensely in some areas of Turkey, and many brands have local or regional sales (Çaymer, 2018a). The relationship between the retail chains and firms results from the interfirm partnership between the two parties.

Figure 5.29. Migros Brand Tea Produced by Karali

Two of the interviewed firms, Akkuş Çay and Vega Çay, also stated that they have interfirm partnerships with retail chains such as Bim and Şok market. The tea brand of Bim, Berk Çay, is packaged by Akkuş Çay. On the other hand, Vega Çay sells bulk tea to the Şok market (Akkuş Çay and Vega Çay, personal communication, September 14, 2022).

Through the interfirm partnership, Gürçay sells tea to markets, coffee houses, producers, and dealerships (Gürçay, personal communication, September 14, 2022). Lazika is another firm that sells tea to markets and shops in addition to wholesalers. However, the shops and markets where these two firms sell, and the prices of their products differ according to their consumer base. For instance, the products of the Lazika brand can often be found in shops that sell vegan or organic products at relatively higher prices (Lazika, personal communication, September 15, 2022). Some tea firms sell their products directly to customers through their own outlets. Some of these outlets offer tea service as well as packaged teas. However, not many firms provide this kind of service to customers. In the interviews, only Doğuş Çay stated that it offers this type of service to its consumers (Doğuş Çay, personal communication, September 14, 2022).

Marketing departments of firms are generally located outside the region in cities such as Istanbul. As for marketing, Çaykur reaches its customers through advertising, social responsibility, sponsorship, social media, and public relations activities. In order to become a global brand, the firm works on increasing the habit of tea consumption and spreading the habit and culture of tea consumption. However, the interest in tea has decreased with the spread of coffee-concept cafes. In Turkey, many

stores of global coffee chains are opened as franchising and find customers from all age groups, particularly young ones (Tatoğlu, 2017).

Consequently, Çaykur gives weight to the franchising system to become a global brand and strives to increase the brand's popularity in the country and abroad. In terms of branding, being in the global markets with the franchising system is of great importance. The franchising service Çaykur started to offer with the Çayla brand is seen as one of the essential steps to becoming a global brand. Franchising has a vital role in polishing and popularizing the brand name. Also, a name can be rented out for money using this system without putting one's finances at risk (Tatoğlu, 2017).

Çaykur has three teahouses operating in İstanbul and one in Rize under its Çayla brand. In addition to Çaykur, Orçay and Neşe Çay have tea houses in Ankara. Some tea firms are also in the process of establishing a tea house recently. Lazika, which plans to launch a tea house in İstanbul shortly, is one of them.

Many firms, such as Lipton, engage in marketing activities through public relations, social responsibility, sponsorship, and advertising. Lazika generally uses social media for marketing and promotion. It has various sponsored ads. Apart from this, products are promoted at gourmet festivals, and the company undertakes the role of sponsorship in student events (Doğuş Çay, personal communication, September 14, 2022).

As for marketing abroad, Çaykur, as the state's tea marketing arm, has participated in important international trade exhibitions and fairs and promoted Turkish tea at its stands. However, no significant success was achieved in marketing Turkish tea to the outside world. The insufficient level of exports does not exceed 5 million kilograms per year. The top tea export country of Turkey is Germany. The Turkish population living in Germany has a significant influence on this (Anonymous, n.d.)

Through the dealer in Odesa, Ukraine, 650 sales points in 8 different local and national stores were opened before the Russian invasion. Along with Rize Tourist, Filiz, and Altınbaş, Golden İstanbul brand, which has been offered to the market,

particularly for export, has been sold in these sales points throughout the country. Besides, the firm's products are available in the markets where Turkish products are sold (AA, 2021).

Besides Çaykur, Ofçay also sells the tea it produces to markets and abroad (Ofçay, personal communication, September 14, 2022). While the tea produced by Doğuş Çay is generally sold in the domestic market, a very small amount is sold to the Balkans. In contrast with these large-scale firms, Lazika, as a small-scale local enterprise, also sells its products abroad, albeit in small quantities. The firm previously exported to countries such as Germany and Russia (Doğuş Çay, personal communication, September 14, 2022). The sales in foreign markets are generally carried out through the firms' websites. Also, the other Turkish businesses operating abroad can carry the sales in foreign markets. Firms that sell their products through their websites use intrafirm coordination. In contrast, the ones that sell their products in foreign markets through other firms use interfirm partnership strategy for the activity.

Exports are not only made through processed products such as packaged tea and bulk tea. Doğuş Çay sells the inert products produced during the production to a German company, which uses the product as an iced tea flavor. This trade is an example of an interfirm partnership strategy (Doğuş Çay, personal communication, September 14, 2022).

These actor strategies exemplified in this section constitute the fundamental dynamics of regional development. Accordingly, the following section examines value capture trajectories for the Eastern Black Sea Region.

5.5 Possible Development Outcomes for Eastern Black Sea Region

The articulation of the tea industry in the Eastern Black Sea Region to global tea production networks is investigated and the findings are evaluated in terms of the possible regional development outcomes in this section. Along with the current

situation of the tea sector in the region, the sectoral structure proposed in the recent tea law proposal (2022) is also used for such evaluation. The law proposal presented to the parliament in June 2022 is of great importance for the sector and this study. Because legal regulation regarding the tea sector has been needed for many years, as the tea law that opened the industry to the private sector is still in force despite the passing of nearly forty years. Moreover, the related tea law proposal provides insight into how the future of the tea industry is intended to be shaped and includes articles on integration into the global market. Therefore, it is used for enriching the evaluation.

At the beginning, the dynamics of plugging in the firms to global production networks is explored in order to understand the possible development outcomes of the GPNs in the Eastern Black Sea Region. Firms can plug into global production networks by using different methods. In order to comprehend what triggers regional development in Eastern Black Sea Region, the intersections arising from these plugging in strategies need to be investigated. In this context, regional development is conceptualized as a dynamic outcome of the complex interactions between region-specific and global production networks. In Turkish tea sector case, two different ways are currently can be observed in the region.

First way for plugging in to GPNs of the region has an outside-in nature where the key firms in the GPN become *inward investors* in the region and allow local firms to form economic linkages that connect them to the more extensive global production system. Through this outside-in mode of incorporation, foreign capital firms such as Lipton, Coca-Cola, and Jacobs Douwe Egberts have involved in Turkish tea sector. The existence of such firms in the sector, have enabled local firms and producers to connect with the global tea production networks to some extent.

These foreign capital firms used various strategies for the engagement with the Turkish tea sector. Accordingly, Jacobs Douwe Egberts (JDE) plugged into the GPN of the Turkish tea industry by forming a joint venture with Ofçay to expand the country's hot beverage market (Scully, 2018). In 2007, Coca-Cola plugged into the

GPN by purchasing the Doğadan brand, a pioneer in the herbal tea market in Turkey that reached a great market. On the other hand, Lipton opened its first factory in the Pazar district of Rize with the opening of tea production in Turkey to the private sector in 1986 (Tikbaş Apak, 2022). It can be said that the main motivation for these three global firms to become a part of the production network of Turkish tea, is the potential of growing demand and market in the country.

Beside outside-in mode of corporation, the second way to plug into GPNs is forming an inside-out mode of incorporation between a firm in the region, reaching out to establish transactional relationships with GPN actors based outside the home patch. The connection between these actors could be in three directions: backward links to suppliers, forward links to customers, or lateral links to partners or specialized service providers. Çaykur's opening a factory in Pakistan in 2018 is a step towards integration to the global production networks by using this inside-out mode of incorporation. Similar to the way foreign firms see Turkey's high demand as an opportunity and invest in the country, Çaykur has invested in Pakistan, one of the world's largest tea importers. Along with this method, adapting an export-oriented and sustainable production model also offer opportunities for integration through the forward links to customers. The local entrepreneurs such as Lazika are generally compatible and have potential for this kind of integration in GPNs.

Accordingly, the overall *organizational ecology* of the regional economy needs to be considered to understand how these connections influence economic development at the regional scale. In the region, 41.2% of the population employed in agricultural sector, and this share has been decreasing under the influence of the rising share of service sector. Additionally, there has been a decline in the workforce even though the population over 15-year-old have been increasing. Therefore, it can be said that the labor force participation and the share of young population in the region has been decreasing. However, there is a significant agricultural employment and labor force participation, resulting from tea in Rize and hazelnuts in Giresun and Ordu. The tea production in the region is mainly concentrated in Rize.

Today, there are over 200 tea-processing factories in various scales in the region, particularly in the Rize district, where nearly the entire population is somehow related to the tea industry. Since the people of the region have been cultivating tea for nearly a century, the tea industry has undergone many changes and transformations. The experience of tea growing is passed down from generation to generation, and the factories located intensively have created economies of scale in the region. Therefore, the region has got know-how for tea farming and processing. However, it can be said that the knowledge and experience in many subjects are lacking and require training. Also, the technologies of the firms are at a level that meets the bare necessities. Only the major actors in the sector use diverse machinery to diversify the product range. Regarding the workforce, the region appears to be disadvantaged in the upstream activities due to migration. On the other hand, it can be said that there are enough white-collar and blue-collar employees to work on the downstream activities of the sector (Çaymer, 2018).

In the GPN framework, the regional institutions have a vital role in integrating the regions into the GPN. The Eastern Black Sea Region can be considered as advantageous giving the existence of regional and official institutions. The existence of Çaykur constitutes a decisive aspect in this respect. The innovative works carried out within its body are vital for the sector. Additionally, Eastern Black Sea Development Agency, National Tea Council, Eastern Black Sea Exports' Association, and the relevant ministry directorates are significant regional institutions with the potential for cooperation with the GPN and other extra-firm actors. Another important regional asset are the universities in this aspect. However, a sufficient level of studies for R&D activities has not been done yet. Lastly, NGOs such as Rize Chamber of Commerce and Industry, Rize Commodity Exchange, Rize Tea Industrialists Association and Tea Producers Solidarity Association are essential yet not very effective and influential regional institutions in the region. Therefore, even though the existence of these institutions is beneficial for the sector and the region, it is seen that the full capability of these institutions for shaping the regional assets is not used yet.

These regional institutions engage in bargaining and cooperation processes with GPN actors in order to capture value and regional development. These processes, which have a direct impact on the possibilities for value capture, typically involve multiple actors at various scales. The geographical location and scale of the actors, in particular, determine the extent of each actor's influence, with each bargaining process taking place at a different node in the GPN. Some actors can operate at the global, national, and regional/local levels and these actors can connect bargaining processes at different scales.

As the world's second most consumed beverage after water, tea is an important strategic product for Turkey, particularly for Eastern Black Sea Region. The beverage is known for its soothing and pleasing effects. It also has gained prominence as a nutritional substance due to the flavonoids, caffeine, numerous elements, and major vitamins that it contains. The two types of flavonoids present in tea, "theaflavins" and "thearubigins," particularly appear to be healthy. Also, in addition to flavonoids that act as antioxidants, there is a high level of antioxidants in the components of the tea plant (Directorate General of Exports, 2018). Considering these health benefits of the tea, there is increasing consumer demand for natural and organic tea. Higher-quality specialty teas are also in great demand (FAO, 2022).

In order to put forth the present and potential strategic coupling processes in the tea sector of the Eastern Black Sea Region, the compatibility between the regional institutions and the demand of GPN actors needs to be investigated. The increasing demand for organic and higher-quality tea presents the first coupling opportunity for the region. Firstly, Turkish tea is grown in an area that experience both summer and winter. Hence, the tea fields of the region get snowfall unlike the remaining fields in the world. This snowfall and the cold weather that the winter brings prevent tea plants from infestation and eliminate the need for using agricultural pesticides in tea fields is eliminated. Also, no additives or chemicals are used in the tea gardens or the production process (Directorate General of Exports, 2018).

However, the current quality of the tea is not at the desired level in the region. As mentioned in the previous section, the quality of the product needs to be enhanced through product and process upgrading. After upgrading the quality of the Turkish tea, the possibility of insertion to the GPNs will be improved, and the qualifications of Turkish tea strengthen the hand of regional institutions in the bargaining process. The need for improvement of the product quality is also comprised in the recent tea proposal (2022). According to the proposal, it is crucial for being more involved in the global tea trade and competing in the world market by creating branded products. To achieve such goals, measures need to be taken in order to improve the quality of tea plants.

Today, there are foreign capital firms operating in the region. However, it can be said that the main motivation of these firms to invest in the region, is not directly related to the quality of the Turkish tea. The sector in Turkey has higher production costs than the other tea-producing countries. Due to these high costs, global firms are generally reluctant for the upstream production segment. Therefore, the main factor of the foreign capital firms to be included in the sector, is the market created by the high level of tea demand in Turkey. Therefore, the region cannot capture enough value from this kind of integration with the GPN. In order to capture value, regional institutions need to shape the regional assets to fit the needs of lead firms in GPNs while taking into account the potential effects on the region.

In the regional development impacts of integration into GPNs, the concept of sustainability comes to the fore, particularly in studies on agricultural production networks. The issue of sustainability is a significant parameter for regional development and articulation of GPNs for the last few decades. The issue, already referred to under the value capture trajectories, is highly relevant to the incorporation into GPNs and the law proposal. Considering sector's vulnerability to climate and environmental factors, ensuring a sustainable production network is compulsory rather than voluntary, just like many other agricultural sectors.

Sustainability is highlighted in nearly all sectoral and regional plans related to the tea sector. For instance, the main target of the Regional Development Program, prepared by DOKA, is defined as ensuring sustainable economic growth, increasing accessibility to social services for all, creating the necessary preconditions for sustainable use of natural resources, a clean environment and increasing participation in decision-making processes (DOKAP, 2021). As can be deduced from this statement, sustainability is not only considered in environmental terms in the program but also in economic terms. However, it is not yet possible to mention coordinated, sustainable production in the region despite the sustainability emphasis in plans and programs.

Today, sustainability awareness has been rising in the tea sector with the initiatives and certification programs that foreign firms mostly lead. For instance, Lipton's Sustainable Tea Agriculture Project is among the various sustainability initiatives employed in the region. Through this project, Lipton aims to make sustainability an integral part of tea production and raise the awareness of tea producers on the subject. To realize such objective, the firm organizes training programs for the producers on the subjects such as good farming practices, erosion control, waste management, wildlife production, fertilization, and pruning. In terms of regional development outcomes, these applications contribute to the region from various aspects. Firstly, this training provides *knowledge and technology transfer* to the region. Additionally, positive impacts on *employment* are achieved through informing the producers. Lipton also contributed to the regional economy by enabling producers to save on fertilizer use through the Soil Analysis Laboratory, which the firm established in cooperation with regional institutions. The establishment of this laboratory is an example of capital inflows into the region through GPN.

Considering the fact that the firms generally are not involved with fresh tea production, and vertical coordination of firms with the upstream production is insufficient, a comprehensive and sustainable tea sector is not an easy target to achieve. Therefore, the need to reconsider the coordination between upstream and downstream activities is of great importance for ensuring sustainability in the sector.

Through this reconsideration, '*contract farming'*, one of the counterparts of subcontracting in agriculture is brought to the agenda with the recent tea law proposal (Baglioni, 2017).

As a local form of outsourcing, contract farming is one of the concepts mentioned in the law proposal. Consequently, contract farming is offered for processing firms to integrate into the upstream production processes. The proposal, therefore, sees contract farming as a way to upgrade tea production by managing all production processes of tea, from farming to packaging.

Based on the global applications of contract farming, it is expected for firms to increase their vertical coordination with contract farmers. This method has the potential to empower firms to compete in an oligopolistic global market structure in an effective way. Additionally, it is believed by the supporters of the law proposal that contract farming will empower the relationships between the processing firms and producers, and encourage the direct production through these relationships (Anonymous, 2022b). However, the method also carries some risks for smallholder farmers. These risks can be exemplified by contemporary land grabs in which transnational capital has acquired millions of hectares of farmland in the Global South since the 2000, frequently in conflict with and uprooting existing communities (Anseeuw et al. 2012; Hall et al. 2015; McGrath 2017, as cited in Cole, 2019). Correspondingly, some of the tea producers in the Eastern Black Sea Region are concerned that this will also be the case for them. There is a perception among them that the firms will seize their land and they will have to work as tenants, workers, and day laborers on their own lands (ANKA, 2022).

This potential shift to contract farming is expected to affect the regional development process. Firstly, the employment structure of the sector would be transformed since there will be arrangements between the firms and producers. This arrangement could limit the producers beyond the limitations brought by the proximity of the firms when they sell their tea to the firms since the arrangements are planned to be made before harvest seasons.

Today, tea processing and marketing firms differ according to their field of activity. However, there are no legal categorizations based on their main field of activity. For instance, a firm that produces its own packaged dry teas and another one that produces bulk tea for selling it another firm for packaging are considered in the same activity field category. For instance, all tea packaged by Çaykur and Doğuş Çay is their own processed tea, while Lipton purchases bulk tea from third parties. Also, some firms only do packaging by using purchased bulk teas. This organizational ecology of the firms is accepted as a problem in the tea proposal. Therefore, the sub-categorization of the firms based on their field of activities is offered. Accordingly, firms operating in the tea industry are offered to be grouped as A, B, and C group firms in which their activities are firmly determined. Based on this categorization, the A and B groups of firms can buy fresh tea from producers for processing, while the C group is only allowed to do packaging of the bulk tea, they purchased from processing firms (Tea Law Proposal, 2022).

In addition to this categorization, a regulation is proposed through the tea law proposal. With this regulation, limiting to the import of dry tea producer firms, it will be obligatory for dry tea producing firms to procure at least 90% of the dry tea from the domestic market. Even though this article of the law proposal is not directly about the integration into the GPNs, it can be related to the subject in several ways. By some firms, teas of foreign origins brought to the country through legal means are blended with domestically produced tea. For instance, Lipton and Doğadan sell such blended teas (Deveci et al., 2016). Regarding the foreign tea share in their products, the production organization of these firms can go under change. Also, this categorization can potentially reduce firms' competitive advantage and can make some firms withdraw from the market. In contrast to this, there could be new firm formations as well. Therefore, the sub-categorization of the tea firms can potentially change the organizational structure of the sector.

For almost five decades, the tea production networks in Eastern Black Sea Region were dominated by endeavors of the State. After the private sector involvement, private firms with a range of economic scales and geographic distribution have come

to participate in the sector along with state-led institution Çaykur. Afterward, the downstream development in Eastern Black Sea Region has been supported by public and global firms such as Lipton (Unilever) and JDE, which have invested in the tea processing factories. As the domestic lead firm, Çaykur has also made multiple new investments through the support of the State. JDE contributed to the sector through its joint venture with Ofçay, which was a domestic firm, and its establishment of new industrial tea factories. On the other hand, Lipton made investments by establishing tea processing factories in the region.

As part of the dynamics of the capitalist accumulation process, firms need to work on new technology and communication systems in order to gain a competitive advantage (Yeung, 2009). This competitive pressure has increased demand for time-to-market, a vital tool for acquiring technological advances that would enable firms to obtain market shares. In the tea sector, strategic development plans of tea processing firms include exploring new sources of competitive advantage. Accordingly, the investment in the processing process has the potential to enhance production and logistics systems. Despite the increasing capabilities of specialized suppliers to complement the core competencies of the lead firms, the lead firms continue to develop the vertical specialization that is currently a feature of upstream tea production and research.

Knowledge generation and technological advancements incorporated in sustainability programs to sustain tea farm productivity have enlarged the realm of industrial actors to the point of providing extension services to dispersed smallholder farmers. The supply-based assets of the region are strongly tied to smallholder supply capabilities and efficient upstream production networks, which define the region's potential to continue coupling in global tea production networks. Despite efforts by the Turkish government to improve and strengthen these regional assets, institutional capacity to produce and supply farming technology through national programs and policies has been limited due to poor coordination and inadequate resources across linked institutions. Historically, government-affiliated research and extension

institutes have overseen developing knowledge and providing comprehensive services.

The *learning and knowledge transfer* trajectories are mostly provided by the State and international development agencies in the Turkish tea sector. However, since the 2000s, knowledge is also transferred to producers and other actors in the sector through certification schemes and training organized by lead and transnational firms. Currently, it is not compulsory for smallholder farmers to participate in such certification schemes. Nevertheless, both the current tendency of firms to participate in downstream production and the tea law proposal are clear indications that the transformation on this subject will eventually take place. The possible intensification of the various sustainability-related extension services poses a threat to the domestic processing-trading actors in terms of participation in global production networks.

In the Eastern Black Sea Region, the tea sector does not have much *employment* generation power as it provides job opportunities only in certain parts of the year, and the purchasing power generated by tea income is lower than in the past. The efforts of transnational firms such as Lipton and the tea law proposal, to modernize traditional tea farming into modern farming businesses imply a shift in social class and the rural landscape from a smallholding to a capitalist farming business.

To conclude, the current strategic coupling process is observed to be in the form of structural coupling for the Eastern Black Sea Region considering that the plugging in processes mostly have outside-in nature. Also, the region has similarities with the commodity source regions that usually use structural mode of coupling. Considering the fact that this mode of coupling poses a threat for the sector since it is based on external dependency, the functional coupling needs to be aimed in order to obtain regional autonomy at least to the some extend.

5.6 Summary of the Chapter

In this chapter of the thesis, the state of articulation of the tea sector in Eastern Black Sea Region to the global production networks is explored. Through this exploration, the actors and activities in the sector is determined as the first step. Following this, the competitive dynamics of the region, the value capture tratejectories and strategies of the sectoral actors are examined in the context of GPN framework. Accordingly, the cost-capability ratio of the region is evaluated as high. However, the market imperative dynamics of the region, provide opportunities for sector to be integrated in the global production networks based on the market size of the sector.

Through the chapter, it is seen that the sector in the region is mainly associated with GPNs through inward investments. The high domestic demand particularly significant in this situation since it constitutes the main motivation of the global firms' investment in the sector. Beside this investments, there are also small-scale local enterprises in the region which adopt sustainable production model. This firms are particularly promising for the transformation of the sector in the region.

At the end of the echapter, possible development outcomes of the integration into GPNs are evaluated. It is seen that the most significant effects of the global firms on the region is their work on sustainability. Additionally, these firms set an example for local firms in terms of institutationalization. Therefore, these two outcomes is the most prominent ones in the region.

CHAPTER 6

CONCLUSION

Throughout the thesis, the regional development impacts of integration into global production networks have been discussed in the context of the tea sector in Eastern Black Sea Region. In this chapter, the thesis will be concluded by providing an overview of the underpinnings of the thesis narrative and brings together the findings of the thesis in relation to the research questions. Accordingly, the effects of the articulation to global production networks, which forms the basis of the main question of the thesis, on regional development will be examined, and the thesis will be concluded with an evaluation on whether integration into GPNs is a path that should be followed in terms of the future of the region.

At the outset, the starting point of this study was the argument developed by the GPN framework regarding regional development, that the internal dynamics of a region will not be sufficient for regional development in today's globalizing world, and it is also essential for regions to meet the needs of global production networks and actors. Within the scope of the thesis, it is aimed to investigate how regions can plug into the GPNs, and what opportunities this can provide for their development based on this argument. For this investigation, the Eastern Black Sea Region and tea sector was chosen as the study area. In doing so, the question of "*What is the potential of the Turkish tea industry to integrate with GPNs and can this integration contribute to the development of the Eastern Black Sea Region?*" is asked as the main question of the thesis. As for clarifying and answering the main question comprehensively, the question was split into four sub-questions. Within the guidance of these sub-questions, inferences were made about the answer to the main question.

- How does GPN framework approach to the regional development?
- How are global tea production networks organized at global scale?

- What is the state of articulation of the Turkish tea industry in global production networks?
- What are the possible regional development results that the tea industry will provide to the region in case of integration into global networks?
- Can the articulation of the tea sector to global production networks contribute to the development of the Eastern Black Sea Region?

To summarize briefly, global production networks concept has three main pillars, which are regional assets, regional institutions, and GPN actors. These three pillars have different relation dynamics with each other, and regional development is accepted as a dynamic result of these complex relations between the pillars. Accordingly, regional institutions get involve with regional assets through transformation process. In this process, the regional assets are shaped and transformed by regional institutions in order to make them compatible with the needs of GPN actors. At the same time, there is a bargaining process between regional institutions and GPN actors. In this process, the stronger the regional assets, the stronger the influence of regional institutions. After the bargaining process, strategic coupling takes place between regional assets and GPN actors which means that the region plugs in to the GPNs.

However, the insertion into GPNs do not necessarily result with positive development outcomes for the regions. The framework argues that for regional development to take place, the regional assets need to have the ability to capture economic value within their roles in the network. If this is not the case, the region will not benefit from the integration and all value generated will be leaked outside the region. Therefore, it is not considered as a pre-acceptance that regional development will definitely emerge in case of integration into global production networks in this study. Instead, the focus is on the possible consequences of integration, both negative and positive.

As one of the oldest beverages of the world, tea is the second most consumed drink after water. Today, the cultivation of the plant offers employment and income to

millions of people. At the global scale, it is seen that a total of 50 tea producing countries produce 7 million tons of tea annually. Moreover, as a widely traded and exported commodity, the industry of the plant has its own production networks. Through these networks, the industry has been expanded rapidly over the past decades under the influence of the rising global demand for the product. Therefore, from cultivation to the marketing of the processed tea, it is a sector that provides source of livelihood for millions of families in the world, including in least developed countries. In fact, except for Argentina and China, all tea-producer countries rank below 100 on the Human Development Index (HDI).

Today, the sector provides employment and income opportunities to a total of 13 million people, and 9 million of them are small-scale producers. Countries such as China, Kenya, India and Sri Lanka are among the largest tea producing countries. Considering international trade of tea, these four countries also stand out in terms of export volume and export value. However, the global tea trade is dominated by four firms: Unilever, Van Ress, James Finlay, and Tata. These firms carry out the activities with the highest value in the sector, while tea producer countries are involved in the production of fresh tea, which has the least value capture potential in this labor-intensive sector.

Unlike many tea producing countries, the tea sector in Turkey is not export-oriented and not at the forefront in terms of international tea trade. As main objective of the thesis is to analyze the position of the sector in global production networks, this nature of the sector has been examined from different perspectives throughout the thesis. Consequently, some underlying reasons have been identified.

As the first reason, the production costs in the sector comes to the fore. Considering that the fragmentation of production and its diversion to overseas countries is mainly to reduce production costs through low-cost labor, the sector in Turkey is not in an advantaged position in this aspect for integration to such networks. To expound on this subject a little more, the production costs that includes costs for raw materials, labor and other inputs, are much higher than in other tea-producing countries with

the 1.5-2 times higher raw material costs and 5 times higher labor costs. Therefore, the high cost-capability ratio of Turkish tea sector reduces the attractivity of the sector for global firms.

Another factor limiting integration to the global production networks in the region is the fact that tea can be produced only half of the year due to the climate conditions. This factor is also highly related with the high production costs of the region. Along with production cost, this situation also leads to new cost items. For instance, the processed tea that was obtained in tea harvest season need to be stored until the next harvest season begins which means cost of storage for the firms. Therefore, it is an undesirable situation for the ones that intends to involve in the sector. In addition, this also reduces the attractiveness of the sector among the people of the region considering that the sector does not provide regular income due to its limited production period.

As seen in the previous chapters, the integration of GPNs does not only occur through outside-in mode of corporation. It is also expected for local firms to connect with these networks through outside-in mode of corporation. However, there are also obstacles and dissuasive factors in the region for this type of integration to take place. The most important of these is the high domestic demand, which makes Turkey one of the countries with the highest tea consumption rates. This demand is so high that although the country is the 5th largest tea producer in the world and almost all of the tea produced is consumed in the domestic market, the demand is still not fully met by domestic production.

The firm behavior is affected in two ways by this situation in the context of integration into global production networks. Firstly, the firms cannot produce high value-added products and motivate to be included in global production networks due to this intense domestic demand due to the low capacity of the most firms in the region for such production volumes. However, this situation has an even more jeopardizing effect on firms for the future of the sector. As a consequence of this high domestic demand, most of the sector actors are not motivated for integration

into GPNs. This was also observed in the firm interviews and observations carried out in the region. Having the knowledge that the tea they produce will be consumed domestically any way, most firms do not have any sense of essentiality for upgrading their product or production processes. Also, due to the same reasons, they do not show any interest in technological developments, which causes inefficiency on an increasing scale and poor quality in the product.

The low product quality, on the other hand, is another factor that limits for Turkish tea sector to integrate in GPNs. At the beginning of tea farming period in the Eastern Black Sea Region, many studies were carried out in terms of the appropriate methods for tea production and tea sampling were brought from several tea-producing countries. In relation to this effort, the quality of the tea plants was much higher during that time. However, the quality of the product has degraded over time under the influence of various factors. The first obvious breaking point in this process was the abandonment of the two-and-a-half-leaf tea standard in tea picking.

With the decrease in livestock activities in the region day by day, the use of organic fertilizers in tea gardens has also decreased. This situation had led to an increase in the demand for chemical fertilizers by the producers. The fact that the use of fertilizer became a necessity after a while had an increasing effect on production costs, and the unconscious use of fertilizer by the producers in order to get more product made the situation even more serious. Furthermore, due to the ownership structure of the region, the division of the land through inheritance led to a decrease in the income from tea production. Also, as a consequence of aging population and decreasing income, the maintenance of the gardens had been disrupted which also decrease the yield and quality of the tea.

In addition to the aforementioned negative activities of the firms, these developments in the tea harvesting segment, along with many other factors to be added to these, have seriously reduced the competitiveness of Turkish tea before the sector has fully matured. That being said, there are also other dynamics that have been formed on the other side of the coin.

While high domestic tea demand affects local firms in this way, it also makes the region an important market on international scale. This situation reveals the differentiating aspect of the region from other tea-producing countries in connecting to global production networks. In Turkey, where almost all of the domestic production is consumed domestically, meeting this ready and high demand is a strategy preferred by global firms.

Apart from all these weaknesses that the sector has, it also has opportunities that should be evaluated. The most important of these opportunities is that there is no need for using pesticides in tea fields of the region, given to the fact that winter season occurs in the region. Increasing demand and awareness towards organic products on a global scale reveals the importance of this feature of the sector. However, despite this, tea cultivation in the region has never been able to come to the fore with this feature and has not been able to take advantage of this opportunity.

Considering all this, the result of the study indicates that the tea sector in the Eastern Black Sea Region have not been completely involved in global tea production networks yet. However, it is possible to mention two types of integration process by global lead firms through inward investment and national firms by diversifying their product ranges and supplying organic and sustainable tea products.

The high demand in the country, which makes it an enticing market for tea, is the primary driver of the global lead corporations' inward investment in the region. One of the most significant indicators of this is that the tea industry, which was established shortly after tea production started in the region, was preferred by a lead firm like Lipton right after it was allowed to the activities of the private sector. In addition to Lipton, giant brands such as JDE and Coca Cola have also taken their place in the market. Unlike Lipton, which established its own factory in the region, Coca-Cola bought a local brand, Doğadan, and JDE partnered with Ofçay to include the region in global production networks through outside-in FDI, adding a different dimension to the industry.

In addition to the activities of these large-scale firms, one of the alternatives to be included in the global production networks is small-scale local initiatives that aim to produce sustainable and high-value-added products. Within the scope of the study, an interview was held with Lazika, and firm strategies that differ from other firms were determined. Firstly, as an advantage of its small scale, the firm is more meticulous about purchasing quality tea leaves in its production processes. Again, depending on its scale, it aims to be in close relations with the producers, informing them and increasing its efficiency in the supply of fresh tea. The second noteworthy issue is that the firm tends towards herbal teas rather than black tea, is involved in international markets, albeit in small quantities, and closely follows the advancements in the sector. Therefore, the firm is more concentrated on high value-added tea products. The motivation behind the firm's establishment by actors outside the sector is described as gratitude to the tea. This is a sign that a network of relations that may trigger the transformation of tea in the Eastern Black Sea region is sprouting in some parts. This is vital for regional development considering the sectoral transformation capacity of these actors with enhanced human capital.

However, although the existence of these relations with global actors and global trends, the overall conclusion of the study determines that the potential of the tea industry to be connected to the global production networks in the Eastern Black Sea Region is low when other tea-producing regions are taken into account. Nevertheless, it is important to examine the current relations with GPN actors since they can give essential clues in terms of regional development effects of these networks.

In Eastern Black Sea Region, the most visible impact of the global firms can be traced in their work on sustainability. Resulting of their lead role in the sector and globally increasing awareness for sustainability, firms like Lipton, have played an important role in making the tea sector sustainable. In relation to this, Lipton became the first firm that has international certification in Eastern Black Sea Region by obtaining Rainforest Alliance Certificate in 2007. Moreover, this breakthrough in the Turkish tea sector is not the first and only initiative of the firm. In fact, Lipton

became the world's first major tea brand to use sustainably sourced tea on a major scale in 2007 with the certification of its plantations in Kenya. Accordingly, as one of the results of the study, it is seen that the most dominant impact of global firms on regional development of Eastern Black Sea Region is on sustainable production.

The similar activities of global firms have a triggering effect for transformation of the tea industry within the scope of sustainability through international certification programs and ensuring that local firms that are in contact with it carry out their efforts to obtain certificates from significant associations such as the Rainforest Association. For instance, some of the firms like Akfa Çay has transitioned to sustainable production as a specialized supplier for Lipton. Therefore, global firms, which are currently carrying out important activities within the scope of sustainability, offer the region an opportunity to develop in areas such as climate-friendly production, knowledge and technology transfer, and creating new business areas.

Apart from that, the institutionalization level of these international companies has become one of the situations that some local firms try to take as an example in the context of the firms in the region cannot be institutionalized enough since they are family businesses in general in the region. The high level of institutionalization of global brands also highlights the significance of institutionalization in the face of sectoral risks. This can be traced in the changes of the structure of Ofçay after entering into a partnership with the global firm JDE. Through this partnership, the improvements made in working hours, working conditions, and wages of the employees of Ofçay. This constitutes one of the advantages global actors provided to the sector.

Likewise, it can be said that enterprises established by local entrepreneurs which puts sustainability at center, such as Lazika, offer integration possibilities for the region. The rising global demand for safe, sustainable, and organic products, has increased the importance of such enterprises in the sector. The main difference between this small-scale enterprises and other firms in the region is the fact that the motivation

for their establishment and the human capital behind it. It is believed that they will contribute to the entire sector and the region in the coming years. Therefore, it is important for the sector to support these kinds of small-scale enterprises.

Along with these advantages, the biggest risk to be considered in the context of GPNs is to ensure value capture through relations established with GPN actors. Otherwise, the region will only have to meet the demands of international actors, and no value capture will be achieved for regional development. For instance, foreign firms entering the sector primarily focused on cold tea, fruit, and herbal tea markets instead of traditional black tea. This is due to local firms' limited product diversity, which causes low competitiveness in the sector. Despite the variety of tea produced by the national leading firm Çaykur in order to compete, superiority could not be achieved against the products produced by global lead firms such as Lipton. This situation is harmful in terms of regional development. The fact that foreign firms dominate these product markets indicates that local actors cannot capture sufficient value even though they are included in global networks. To avoid value leakage from the region, the regional institutions must be strengthened, and the competitiveness of the sector need to be enhanced.

However, most regional actors have yet to make any significant predictions about the future of the tea industry. In general, firms think that the sector will continue in this way. However, it is obvious that this will not be the case within the scope of the information and data collected within the scope of the study. Factors such as the problems experienced by the tea industry on the basis of its own internal dynamics, aging tea fields, increasing migration, and differentiated workforce pose threats to the future of tea. Also, a global threat such as climate change has begun to show its negative effects on the sector. In this direction, ensuring the transformation of the sector by considering sustainability has the potential to create new opportunities for the sector in the coming years. Nevertheless, the firms in the region need to upgrade their production processes.

The draft tea law, which is at the forefront of the studies on the future of tea at the national level and which was submitted to the parliament in June 2022, also contains various impressions on the subject. The first of these, the concept of contract farming, has been one of the most popular concepts in the sector. The regional actors approach the bill with reservations due to the difficulties faced by the regions and agricultural sectors that switch to contract farming on the way to being included in global production networks. Considering the interests of all stakeholders of the sector, this method, which is thought to contribute to the sector, is also an issue that needs to be considered in depth, as it has the potential to make small-scale producers workers on their own land.

Another critical issue that needs to be evaluated regarding the bill is the transfer of the task of determining the prices of fresh tea to the National Tea Council. As mentioned before, while Çaykur's price policies create a negative situation for international actors and the national private sector, it is suggested that this structure need to be changed. The council, which includes many different sector stakeholders, is theoretically seen as a unit that includes all sector components and will implement fair-price policies. However, here, too, the bargaining power of the stakeholders in the council should be taken into account. Tea Producers Association, which recently left the council after questioning its power therewithin, is one of the most recent developments in this regard. This decision of the Tea Producers Association makes an important impression that the structure, that is offered by the law proposal, has a negative side in terms of the representation of the producers, which are the most vulnerable stakeholders of the industry. Consequently, it is possible to state that the tea law proposal offers some tools for integration to GPNs, however, the value capture is not well-considered within the process. For value capture to take place, the regional institutions, such as Tea Producers Association is of great importance.

In general, considering the high demand in the country, it is important to preserve and develop the tea sector in order not to lose the balance between production and consumption and not to increase the expenses for tea imports. Also, the existence of the tea industry is pre-emptive if different economic sectors are not paved for the

people of the region, particularly those who generate income from the industry. Hence, the integration to GPNs can be considered as a strategy for strengthening the sector. However, the internal problems should be solved as the first step, and functional coupling should be aimed instead of structural coupling which is closer to the describing the current situation of the sector in terms of integration into GPNs. Also, the capability of the regional institutions to shape the regional assets for retaining the captured value in the region during the integration process is vital for realizing the desired results for the development of the region.

To conclude, even though the Turkish tea industry currently has the potential to be connected to global production networks, albeit at a low level, the region is not yet qualified to go beyond being just a commodity resource region for global actors. In order for the sector to go beyond this, the factors that limit the sector on a local scale need to be reconstructed with a focus on regional development. Since this requires a radical structural transformation, it is not a situation that can be realized in the short term. Therefore, as a result of this study, it has been concluded that the development of the Eastern Black Sea Region by integrating the tea industry into global production networks is not feasible under the current conditions. However, it is thought that if an effort is made to ensure development in this way without a holistic assessment, many stakeholders of the sector, especially tea producers, will be passivized in the sector and the value created through the sector will not remain in the region, but will be transferred outside the region through global actors.

REFERENCES

AA. (2021, February 15). ABD'ye Yeşil Çay Pudrası İhracı. *Habertürk*. https://www.haberturk.com/caykur-abd-ye-yesil-cay-pudrasi-ihrac-edecek-29-73632-ekonomi

AA, & DHA. (2015, March 4). Çaykur, beyaz çayı "Beyaz İksir" adıyla piyasaya sürdü. *NTV*. https://www.ntv.com.tr/ekonomi/caykur-beyaz-cayi-piyasaya-surdu,qSJ-4iVE-SEmfdM05hTnK9Q

Ahmed, S., Griffin, T., Cash, S. B., Han, W.-Y., Matyas, C., Long, C., Orians, C. M., Stepp, J. R., Robbat, A., & Xue, D. (2018). Global Climate Change, Ecological Stress, and Tea Production. In *Stress Physiology of Tea in the Face of Climate Change* (pp. 1–23). Springer Singapore. https://doi.org/10.1007/978-981-13-2140-5_1

Alikılıç, D. (2016). Çay'ın Karadeniz Bölgesi için Önemi ve Tarihi Seyri. *Karadeniz İncelemeleri Dergisi*, *21*, 269–280. http://biriz.biz/cay/kultur/index.htm.

Amin, A. (1998). Globalisation and Regional Development: A Relational Perspective. *Competition & Change*, *3*, 145–165.

Amin, A., & Nigel, T. (1994). Living In the Global. In A. Amin & T. Nigel (Eds.), *Globalisation, Institutions and Regional Development In Europe* (Vol. 7, Issue 1, pp. 1–22). Oxford University Press. https://doi.org/10.2/jquery.min.js

Amin, A., & Thrift, N. (1992). Neo-Marshallian Nodes in Global Networks. *International Journal of Urban and Regional Research*, *16*(4), 571–587. https://doi.org/10.1111/j.1468-2427.1992.tb00197.x

Andae, G. (2022, August 28). How Russia-Ukraine war hurts Kenya tea exports. *Business Daily Africa*. https://www.businessdailyafrica.com/bd/data-hub/how-russia-ukraine-war-hurts-kenya-tea-exports-3929218

Anonymous. (n.d.). *Tea Market in Turkey*. Statista. https://www.statista.com/-outlook/cmo/hot-drinks/tea/turkey

Anonymous. (2020). *Çay Değerlendirme Raporu*. https://www.tarimorman.gov.tr/bugem/belgeler/milli%20tarim/ürün%20masaları%20ürün%20değerlendirme%20raporları%20yayımlandı/çay%20değerlendirme%20raporu.pdf

Anonymous. (2022, May 16). *Japan's Green Tea Exports Reach a New High*. Nippon. https://www.nippon.com/en/japan-data/h01318/

Artık, N., & Poyrazoğlu, E. (2017). *Yeşil ve Siyah Çay Üretim Teknolojisi ve Çayın Sağlık Açısından Önemi* (Y. Yeygel & N. Kara, Eds.). Yayın Dairesi Başkanlığı.

Baglioni, E. (2017). Labour Control and the Labour Question in Global Production Networks: Exploitation and Disciplining in Senegalese Export Horticulture. *Journal of Economic Geography*, 1–27. https://doi.org/10.1093/jeg/lbx013

Bair, J. (2005). Global Capitalism and Commodity Chains: Looking Back, Going Forward. *Competition & Change*, *9*(2), 153–180. https://doi.org/10.1179/1024-52905X45382

Bair, J. (2009). Frontiers of Commodity Chain Research. In J. Bair (Ed.), *Frontiers of Commodity Chain Research* (First Edition). Stanford University Press. https://doi.org/10.1515/9780804779760

Bair, J. (2015). *From Commodity Chains to Value Chains and Back Again?*

Barrientos, S., Gereffi, G., & Rossi, A. (2011). Economic and Social Upgrading in Global Production Networks: A New Paradigm for a Changing World. *International Labour Review*, *150*, 319–340.

Başer, A. (2006). *Türkiye'de Tarım Destekleme Politikaları ve Çay Sektörü* [Master's Thesis, Marmara University].

Bathelt, H. (2006). Geographies of Production: Growth Regimes in Spatial Perspective 3 - Toward a Relational View of Economic Action and Policy. *Progress in Human Geography*, *30*(2), 223–236. https://doi.org/10.1191/0309132506-ph603pr

Bellér-Hann, I., & Hann, C. (2003). *İki Buçuk Yaprak Çay: Doğu Karadeniz'de Devlet, Piyasa, Kimlik* (3. Baskı). İletişim Yayınları.

Bildircin, M. (2022, November 4). Varlık Fonu yok etti: ÇAYKUR'da 503 milyon lira zarar! *Birgün*. https://www.birgun.net/haber/varlik-fonu-yok-etti-caykur-da-5-03-milyon-lira-zarar-408774

biriz.biz. (n.d.). *İl ve Yıllara Göre Çaykur Tarafından Satın Alınan Yaş Çay Miktarları (Ton)*. Retrieved November 27, 2022, from http://biriz.biz/cay/illeregoresatinalinanyascay.htm

Bond, T. J. (2011). The Origins of Tea, Coffee and Cocoa as Beverages. In A. Crozier, H. Ashihara, & F. Tomás-Barbéran (Eds.), *Teas, Cocoa and Coffee* (First Edition, pp. 1–24). Wiley. https://doi.org/10.1002/9781444347098.ch1

Britannica, T. E. of E. (2019, March 31). *Great Atlantic & Pacific Tea Company, Inc*. Encyclopedia Britannica. https://www.britannica.com/topic/Great-Atlantic-and-Pacific-Tea-Company-Inc

Chang, K. (2015). *World Tea Production and Trade Current and Future Development*. Food and Agriculture Organization of the United Nations www.fao-.org/publications

Charrington-Hollins, S. (2020). *A Dark History of Tea*. Pen & Sword Books Ltd.

Chen, Z.-M., & Chen, L. (2012). Delicious and Healthy Tea: An Overview. In L. Chen, Z. Apostolides, & Z.-M. Chen (Eds.), *Global Tea Breeding: Achievements, Challenges and Perspectives* (pp. 1–11). Springer Berlin Heidelberg. https://doi.org/10.1007/978-3-642-31878-8_1

Coe, N. M. (2018). Global Production Networks. In G. Cook, J. Johns, F. McDonald, J. Beaverstock, & N. Pandit (Eds.), *The Routledge Companion to the Geography of International Business* (First Edition, pp. 147–160). Routledge. https://doi.org/10.4324/9781315667379

Coe, N. M. (2020). Global Production Networks. In *International Encyclopedia of Human Geography* (pp. 199–206). Elsevier. https://doi.org/10.1016/B978-0-08-102295-5.10072-1

Coe, N. M. (2021). *Advanced Introduction to Global Production Networks*. Edward Elgar Publishing Limited. https://www.e-elgar.com/shop/gbp/advanced-introduction-to-global-production-networks-9781788979610.html

Coe, N. M., Dicken, P., & Hess, M. (2008). Global production networks: Realizing the potential. *Journal of Economic Geography*, *8*(3), 271–295. https://doi.-org/10.1093/jeg/lbn002

Coe, N. M., & Hess, M. (2011). Local and Regional Development: A Global Production Network Approach. In A. Pike, A. Rodríguez-Pose, & J. Tomaney (Eds.), *Handbook of Local and Regional Development* (pp. 128–138). Routledge Taylor & Francis Group.

Coe, N. M., & Hess, M. (2013). Global production networks, labour and development. *Geoforum*, *44*, 4–9. https://doi.org/10.1016/j.geoforum.2012.08.003

Coe, N. M., Hess, M., Yeung, H. W., Dicken, P., & Henderson, J. (2004). "Globalizing" Regional Development: A Global Production Networks Perspective. *New Series*, *29*(4), 468–484.

Coe, N. M., & Yeung, H. W. (2019). Global Production Networks: Mapping Recent Conceptual Developments. *Journal of Economic Geography*, *19*(4), 775–801. https://doi.org/10.1093/jeg/lbz018

Coe, N. M., & Yeung, H. W.-C. (2015). *Global Production Networks: Theorizing Economic Development in an Interconnected World* (First Edition). Oxford University Press.

Cui, F., & Liu, G. (2019). *Global Value Chains and Production Networks: Case Studies of Siemens and Huawei*. Academic Press. https://doi.org/10.1016/C2017-0-01798-6

Çaykur. (2019a). *Çay Sektörü Raporu*. Çay İşletmeleri Genel https://www.caykur.gov.tr/Pages/Yayinlar/SektorelRaporlar.aspx

Çaykur. (2019b). Çaykur'un Yeşil ve Siyah Çay Pudrası Dünyaya Açılıyor. *ÇAYKUR Resmi Websitesi*. https://www.caykur.gov.tr/pages/haber/haberdetay.aspx?itemid=2341&hash=603ce505aed0d01bc95f512a283df220d87fd140a35c80f80e665bc63c024e0d

Çaykur. (2022). Çaykur'dan bir ilk daha; Yeşil çay pudralı tahin helvası. *ÇAYKUR Resmi Websitesi*. https://www.caykur.gov.tr/Pages/Haber/HaberDetay.aspx?ItemId=3781&Hash=624779823C72D3088E635DF59C02FF57207EF8731AFA54F9AEE252E572C5EFFC

Çaymer. (2017). *Değer Zinciri Analizi Aktivite C1.1.1*. Çaymer Çay Sektörü Raporları. Rize Ticaret Borsası. https://www.rtb.org.tr/uploads/files/791-1)_Değer_Zinciri_Analizi.pdf

Çaymer. (2018a). *Çay Üretim Rekabet Stratejisi ve Yol Haritası Aktivite C1.1.5*. Çaymer Çay Sektörü Raporları. Rize Ticaret Borsası. https://www.rtb.org.tr/-uploads/files/7919)_Çay_Üretim_Rekabet_Stratejisi_Ve_Yol_Haritası.pdf

Çaymer. (2018b). *Tüketici Eğilimi ve Tahmin Analizi Raporu Faaliyet C2.3.4.2*. Çaymer Çay Sektörü Raporları. Rize Ticaret Borsası https://www.rtb.org.tr/-uploads/files/791-57)_Tüketici_Eğilimi_ve_Tahmin_Analizi_Raporu.pdf

Çaysiad. (n.d.). *Çaysiad | Çay Sanayicisi İş Adamları Derneği Resmi Web Sitesi*. https://www.caysiad.org.tr/

Çimen, K. (2014). *Türkiye'de Çay Yetiştiriciliği ve Çay Sanayii* [Master's Thesis, İstanbul University]

Dawley, S., MacKinnon, D., & Pollock, R. (2019). Creating Strategic Couplings in Global Production Networks: Regional Institutions and Lead Firm Investment in the Humber Region, UK. *Journal of Economic Geography*, *19*(4), 853–872. https://doi.org/10.1093/jeg/lbz004

de Marchi, V., & Alford, M. (2022). State policies and upgrading in global value chains: A systematic literature review. *Journal of International Business Policy*, *5*(1), 88–111. https://doi.org/10.1057/s42214-021-00107-8

Dedeoğlu, S. (2016). *Türkiye'de Mevsimlik Tarımsal Üretimde Yabancı Göçmen İşçiler Mevcut Durum Raporu*. Kalkınma Atölyesi Kooperatifi. http://www.madde14.org/index.php?title=KAT_-_Türkiye'de_Mevsimlik_Tarımsal_Üretimde_Yabancı_Göçmen_İşçiler

Deveci, F. G., Özbey, E., Eivazzadeh, S., & Ünal, S. (2016). Türkiye Pazarında Yerli ve Yabancı Çay Markalarının Konumlandırılması. *Atatürk Üniversitesi İktisadi ve İdari Bilimler Dergisi*, *30*(3), 473–492.

DHA. (2021, May 7). Afrikalı işçiler çay tarımı için Karadeniz'de: Uzmandan "sağlık riski" uyarısı. *Cumhuriyet Gazetesi*. https://www.cumhuriyet.com.tr/haber-/afrikali-isciler-cay-tarimi-icin-karadenizde-uzmandan-saglik-riski-uyarisi-18-34309

Dicken, P. (1986). *Global Shift: Industrial Change in a Turbulent World* (First Edition). Harper and Row.

Dicken, P. (2015). *Global Shift: Mapping the Changing Contours of the World Economy* (P. Dicken, Ed.; 7th Edition). The Guildford Press.

Directorate General of Exports. (2018). *Black Tea* (Food and Agriculture). Republic of Turkey, Ministry of Economy. https://trade.gov.tr/data/5b8fd55613b8761f041-fee87/566f5c6418d38d51f198f8cbd1fe1ea1.pdf.

DOKAP. (2021). *Doğu Karadeniz Projesi (DOKAP) Bölge Kalkınma Programı 2021-2023*.

Dolan, C., & Humphrey, J. (2004). Changing governance patterns in the trade in fresh vegetables between Africa and the United Kingdom. *Environment and Planning A*, *36*(3), 491–509. https://doi.org/10.1068/a35281

Dubrin, B. (2010). *Tea Culture: History, Traditions, Celebrations, Recipes & More*. Penn Publishing Ltd.

EDB. (2022). Industry Capability Report. In *Sri Lanka Export Development Board*. https://www.srilankabusiness.com/ebooks/industry-capability-report-tea-2021.pdf

Ekmen, M. E. (2018, October 31). *Dünyada ve Ülkemizde Çay Üretici Örgütleri*. Tarım ve Orman Dergisi. http://www.turktarim.gov.tr/Haber/178/dunyada-ve-ulke-mizde-cay-uretici-orgutleri

Ensign, P. C. (2001). Value Chain Analysis and Competitive Advantage: Assessing Strategic Linkages and Interrelationships. *Journal of General Management*, *27*(1), 18–42.

Erbaş, A., & Meyveci, R. (2022, May 20). Rize'de "Çay Göçü" ile Nüfus 4'e Katlandı. *Milliyet Gazetesi*. https://www.milliyet.com.tr/gundem/rizede-cay-gocu-ile-nufus-4e-katlandi-6758041

Ercisli, S. (2012). The Tea Industry and Improvements in Turkey. In *Global Tea Breeding* (pp. 309–321). Springer Berlin Heidelberg. https://doi.org/10.-1007/978-3-642-31878-8_11

Ernst, D. (2002). Global Production Networks and the Changing Geography of Innovation Systems. Implications for Developing Countries. *Economics of Innovation and New Technology*, *11*(6), 497–523. https://doi.org/10.10-80/10438590214341

Ernst, D., & Kim, L. (2002). *Global production networks, knowledge diffusion, and local capability formation*. http://ssrn.com/abstract=2742956

FAO. (2022). *International Tea Market: Market Situation, Prospects and Emerging Issues*. Food and Agricultural Organization of United Nations. https://www.fao-.org/3/cc0238en/cc0238en.pdf

FAOSTAT. (2022). *Statistics Division, Food and Agriculture Organization of the United Nations*. The Food and Agriculture Organization of the United Nations. https://www.fao.org/faostat/en/#data

Feenstra, R. C. (1998). Integration of Trade and Disintegration of Production in the Global Economy. *Journal of Economic Perspectives*, *12*(4), 31–50. https://doi-.org/10.1257/jep.12.4.31

Genç, F. (2010). *Türkiye'de Çay Üretimi ve Değişen Sosyal İlişkiler* [Yüksek Lisans Tezi]. Marmara Üniversitesi.

Genç, F. (2022, July 3). Çay kanun teklifi Karadeniz'den geçmez…. *Evrensel*. https://www.evrensel.net/haber/465052/cay-kanun-teklifi-karadenizden-gec-mez

Gereffi, G. (1994). The Organization of Buyer-Driven Global Commodity Chains: How U.S. Retailers Shape Overseas Production Networks. In G. Gereffi & M. Korzeniewicz (Eds.), *Commodity Chains and Global Capitalism* (pp. 95–122). Praeger Publishers.

Gereffi, G. (1999). International Trade and Industrial Upgrading in the Apparel Commodity Chain. *Journal of International Economics*, *48*, 37–70.

Gereffi, G. (2011). Global Value Chains and International Competition. *The Antitrust Bulletin*, *56*(1), 37–56. https://doi.org/10.1177/0003603X1105600104

Gereffi, G. (2014). Global Value Chains in A Post-Washington Consensus World. *Review of International Political Economy*, *21*(1), 9–37. https://doi.org/10.-1080/09692290.2012.756414

Gereffi, G. (2018). Global Value Chains and Development. In *Global Value Chains and Development*. Cambridge University Press. https://doi.org/10.1017/97-81108559423

Gereffi, G., Humphrey, J., Kaplinsky, R., & Sturgeon*, T. J. (2001). Introduction: Globalisation, Value Chains and Development. *IDS Bulletin*, *32*(3), 1–8. https://doi.org/10.1111/j.1759-5436.2001.mp32003001.x

Gereffi, G., Humphrey, J., & Sturgeon, T. (2005). The Governance of Global Value Chains. *Review of International Political Economy*, *12*(1), 78–104. https://doi.org/10.1080/09692290500049805

Gereffi, G., & Korzeniewicz. (1990). Commodity Chains and Footwear Exports in the Semiperiphery. In W. G. Martin (Ed.), *Semiperipheral States in the World-Economy* (pp. 45–68). Greenwood Press.

Gereffi, G., Korzeniewicz, M., & Korzeniewicz, R. P. (1994). Introduction: Global Commodity Chains. In G. Gereffi & M. Korzeniewicz (Eds.), *Commodity Chains and Global Capitalism* (pp. 1–14). Praeger.

Güler, B. (2021). Üretim İlişkilerinin Dönüşümü: Tarladan Çaya İzlence. In F. Genç & Ö. Şendeniz (Eds.), *Çaydan Öte: Tarladan Demliğe, Mekanda ve Bellekte Çay (Beyond Tea: From Field to Pot, Tea in Space and Memory)* (First Edition, pp. 23–50). Gola Yayınları.

Hafid, H. (2017). *Sustainability and Economic Governance: Reconfiguring Cocoa-Chocolate Production Networks in Indonesia* [Doctoral Thesis]. University of Sydney.

Hall, N. (2000). *The Tea Industry* (First Edition). Woodhead Publishing Limited.

Han, P. L. K. (2007). Chapter 2. Tracing the History of Tea Culture. In L. Jolliffe (Ed.), *Tea and Tourism* (pp. 23–37). Multilingual Matters. https://doi.org/10.21-832/9781845410582-004

Henderson, J., Dicken, P., Hess, M., Coe, N. M., & Yeung, H. W.-C. (2002). Global Production Networks and the Analysis of Economic Development. *Review of International Political Economy*, *9*(3), 436–464. https://doi.org/10.1080/09-692290210150842

Hess, M. (2004). 'Spatial' Relationships? Towards A Reconceptualization of Embeddedness. *Progress in Human Geography*, *28*(2), 165–186. https://doi.org-/10.1191/0309132504ph479oa

Hess, M. (2009). Investigating the Archipelago Economy: Chains, Networks and the Study of Uneven Development. *Journal Für Entwicklungspolitik XXV*, 20–37.

Hess, M. (2018). Global Production Networks. In D. Richardson, C. Noel, M. F. Goodchild, A. Kobayashi, W. Liu, & R. A. Marston (Eds.), *International Encyclopedia of Geography* (pp. 1–13). Wiley-Blackwell. https://doi.org/10.-1002/9781118786352.wbieg0675.pub2

Hess, M., & Yeung, H. W.-C. (2006). Whither Global Production Networks in Economic Geography? Past, Present, and Future. *Environment and Planning A: Economy and Space*, *38*(7), 1193–1204. https://doi.org/10.1068/a38463

Hicks, A. (2009). Current Status and Future Development of Global Tea Production and Tea Products*. *AU J.T*, *12*(4), 251–264.

Hopkins, T. K., & Wallerstein, I. (1977). Patterns of Development of the Modern World-System: Research Proposal. *Review*, *1*(2), 111–145.

Hopkins, T. K., & Wallerstein, I. (1986). Commodity Chains in the World-Economy Prior to 1800. *Review (Fernand Braudel Center)*, *10*(1), 157–170.

Humphrey, J., & Schmitz, H. (2001). Governance in Global Value Chains. *IDS Bulletin*, *32*(3), 19–29. https://doi.org/10.1111/j.1759-5436.2001.mp320030-03.x

Hürriyet. (2021). Turkey Breaks Own Record in Tea Consumption Amid Pandemic - Türkiye News. In *Hürriyet Daily News*. https://www.hurriyetdailynews.com-/turkey-breaks-own-record-in-tea-consumption-amid-pandemic-169751

IGG/Tea. (2018). *Emerging Trends in Tea Consumption: Informing A Generic Promotion Process* (Twenty-Third Session; Committee on Commodity Problems). www.fao.org

IGG/Tea. (2022). *Current Global Market Situation and Emerging Issues* (Twenty-Fourth Session; Committee on Commodity Problems). www.fao.org

ILO. (2019). *Eight Ways to Grow Nepal's Agricultural Sector: A Rapid Market Assessment and Ranking of Agricultural Sub-Sectors*.

Imarc. (2022). *Tea Market Size, Share, Growth, Trends and Forecast 2022-2027*. Imarc Group. https://www.imarcgroup.com/tea-market

İnal, R. (2021). Tea Farming Industry in Turkey and Social Economic History 1920-1960. *Alternatif Politika*, *13*(2), 351–370. https://doi.org/10.53376/ap.2021.12

IndexMundi. (2022). *Tea - Monthly Price - Commodity Prices - Price Charts, Data, and News*. https://www.indexmundi.com/commodities/?commodity=tea

Kano, L., Tsang, E. W. K., & Yeung, H. W. (2020). Global Value Chains: A Review of the Multi-Disciplinary Literature. *Journal of International Business Studies*, *51*(4), 577–622. https://doi.org/10.1057/s41267-020-00304-2

Kaplinsky, R. (2013). *Global Value Chains, Where They Came From, Where They Are Going and This Is Important* (No. 68; IKD Working Paper). www.open.-ac.uk/ikd/publications/working-papers

Karaçimen, E., & Değirmenci, E. (2019). Doğu Karadeniz'de Çay Tarımının Çelişkili Sürekliliği. *Toplum ve Bilim*, *150*, 63–93.

Karaçimen, E., & Değirmenci, E. (2021). Doğu Karadeniz'in Değişen Toplumsal, İktisadi ve Ekolojik Yapısını Çay Üzerinden Okumak. In F. Genç & Ö. Şendeniz (Eds.), *Çaydan Öte: Tarladan Demliğe, Mekanda ve Bellekte Çay (Beyond Tea: From Field to Pot, Tea in Space and Memory)* (First Edition, pp. 113–122). Gola Yayınları.

Keleş, S. (2013). *Osmanlı İmparatorluğu Döneminde Rize Ekonomisinde Dokumacılık* [Master's Thesis, Marmara University].

Kelly, P. F. (2013). Production Networks, Place and Development: Thinking Through Global Production Networks in Cavite, Philippines. *Geoforum*, *44*, 82–92. https://doi.org/10.1016/j.geoforum.2011.10.003

Keskin, A. S. (1989). *Türkiye'de Çay Politikası* [Master's Thesis, Ankara University].

Kılıç, Ş. (2014). *Çayın 90 Yılı* (1. Basım). Kesişim Yayıncılık ve Tasarım Hizmetleri.

Kogut, B. (1984). Normative Observations on the International Value-Added Chain and Strategic Groups. *Journal of International Business Studies*, 151–166. www.jstor.org

Kogut, B. (1985). Designing Global Strategies: Comparative and Competitive Value-Added Chains. *Sloan Management Review*, *26*(4), 15–28.

Korzeniewicz, M. (1992). Global Commodity Networks and the Leather Footwear Industry: Emerging Forms of Economic Organization in a Postmodern World. *Sociological Perspectives*, *35*(2), 313–327.

Kumarihami, H. M. P. C., & Song, K. J. (2018). Review on Challenges and Opportunities in Global Tea Industry. *The Korean Tea Society*, *24*(3), 79–87. https://doi.org/10.29225/jkts.2018.24.3.79

Kurt, G. (2018). Türkiye ve Seçilmiş Üretici Ülkelerin Çay Sektöründe Rekabet Gücü. *Recep Tayyip Erdogan University Journal of Social Sciences*, *7*, 153–186.

Lane, C., & Probert, J. (2009). *National Capitalisms, Global Production Networks: Fashioning the Value Chain in the UK, USA, and Germany*. Oxford University Press.

Laibuni, N., John, N., Wangombe, H., & Muluvi, A. (2017). *Transforming Agribusiness, Trade and Leadership: A Capacity Needs Assessment of the Tea Value Chain in Kenya* (Special Paper No.17). https://doi.org/10.13140/RG.2.2.356-54.98880

Liu, A. B. (2020). *Tea War: A History of Capitalism in China and India*. Yale University Press.

Lovering, J. (1999). Theory Led by Policy: The Inadequacies of the 'New Regionalism' (Illustrated from the Case of Wales). *International Journal of Urban and Regional Research*, *23*(2), 379–395. https://doi.org/10.1111/1468-2427.00202

Mackinnon, D., Cumbers, A., & Chapman, K. (2002). Learning, innovation and regional development: A critical appraisal of recent debates. *Progress in Human Geography*, *26*(3), 293–312. https://doi.org/10.1191/0309132502ph-371ra

Mamun, M. S. al. (2019). Tea Production in Bangladesh: From Bush to Mug. In M. Hasanuzzaman (Ed.), *Agronomic Crops: Volume 1: Production Technologies: Vol. Volume 1* (pp. 441–506). Springer. https://doi.org/10.1007/978-981-32-9151-5

Martin, L. C. (2007). *Tea: The Drink That Changed the World*. Tuttle Publishing.

Martin, L. C., & Cooper, R. (2011). From Herbs to Medicines: A World History of Tea—from Legend to Healthy Obsession. *Alternative and Complementary Therapies*, *17*(3), 162–168. https://doi.org/10.1089/act.2011.17307

Masi, D., & Godsell, J. (2022). 1. Past, Present and Future Perspectives of Supply Chains. In R. Agarwal, C. Bajada, R. Green, & K. Skellern (Eds.), *The Routledge Companion to Global Value Chains: Reinterpreting and Reimagining Megatrends in the World Economy* (First Edition, pp. 3–12). Routledge.

McNamara, V. (2020). The Future of the Global Tea Industry. *Global Edge*. https://globaledge.msu.edu/blog/post/56898/the-future-of-the-global-tea-industry

Milberg, W., & Winkler, D. (2013). *Outsourcing Economics* (First Edition). Cambridge University Press. https://doi.org/10.1017/CBO9781139208772

Muia, J. (2022). Tea Prices Drop 12 Percent in The Last 7 Months. In *Soko Directory*. https://sokodirectory.com/2022/08/tea-prices-drop-12-percent-in-the-last-7-months/

Muoki, C. R., Maritim, T. K., Oluoch, W. A., Kamunya, S. M., & Bore, J. K. (2020). Combating Climate Change in the Kenyan Tea Industry. *Frontiers in Plant Science*, *11*(Article 339), 1–10. https://doi.org/10.3389/fpls.2020.00339

Neilson, J. (2014). Value Chains, Neoliberalism and Development Practice: The Indonesian Experience. *Review of International Political Economy*, *21*(1), 38–69. https://doi.org/10.1080/09692290.2013.809782

Niebuhr, D. (2016). *Making global value chains: Geographies of market-oriented development in Ghana and Peru*. Springer Fachmedien. https://doi.org/10.1007/978-3-658-13287-3

Nierstraz, C. (2015). The Popularization of Tea: East India Companies, Private Traders, Smugglers and the Consumption of Tea in Western Europe, 1700–1760. In M. Berg, F. Gottman, H. Hodacs, & C. Nierstrasz (Eds.), *Goods from the East, 1600–1800* (pp. 263–276). Palgrave Macmillan UK. https://doi.org/10.1057/9781137403940_17

Nilsen, T. (2019). Global Production Networks and Strategic Coupling in Value Chains Entering Peripheral Regions. *The Extractive Industries and Society*, *6*(3), 815–822. https://doi.org/10.1016/j.exis.2019.04.004

Ono, W. (2021). Introductory Overview of the History of Global Tea Production. In R. Durighello, R. Currie, & M. Luengo (Eds.), *Tea Landscapes of Asia A Thematic Study* (pp. 7–17). ICOMOS.

O'Sullivan, L., & Geringer, J. M. (1993). Harnessing the Power of Your Value Chain. *Long Range Planning*, *26*(2), 59–68. https://doi.org/10.1016/0024-6301(93)-90136-4

Orçay. (n.d.). Orçay Website. Retrieved December 23, 2022, from https://orcay.com.tr/

Önçırak, M. (2019). *Çay Sektörü ve Türkiye Ekonomisi* [Master's Thesis, Bursa Uludağ University].

Özcan, M., & Yazıcıoğlu, E. (2013). Türkiye Çay Yetiştiriciliğinin Sorunları ve Öncelikleri. In S. C. Beritan & E. Yıldırım (Eds.), *II. Rize Kalkinma Sempozyumu, Çay – Lojistik – Turizm, Bildiriler Kitabı* (pp. 64–77).

Pehlevan, A. (2008). *1495 Numaralı Şer'iyye Sicili Defterine Göre Rize'nin Ekonomik Ve Sosyal Hayatı* [Master's Thesis, Marmara University].

Petrella, R. (1996). Globalization and Internationalization: The Dynamics of the Emerging World Order. In R. Boyer & D. Drache (Eds.), *States Against Markets: The Limits of Globalization* (pp. 45–61). Routledge.

Plank, L., & Staritz, C. (2009). Introduction: Global Commodity Chains and Production Networks – Understanding Uneven Development in the Global Economy. *Journal Für Entwicklungspolitik*, *25*(2), 4–19. https://doi.org/10.-20446/JEP-2414-3197-25-2-4

Porter, M. E. (1985). *Competitive Advantage: Creating and Sustaining Superior Performance (with a new introduction)*. The Free Press.

Porter, M. E. (1990). *The Competitive Advantage of Nations*. Macmillan.

Porter, M. E. (1998). *The Competitive Advantage of Nations: With A New Introduction*. Free Press.

ResourceTrade.Earth. (n.d.). Chatham House. Retrieved December 23, 2022, from https://resourcetrade.earth

Ricciotti, F. (2020). From Value Chain to Value Network: A Systematic Literature Review. *Management Review Quarterly*, *70*(2), 191–212. https://doi.org/10.10-07/s11301-019-00164-7

Riisgaard, L., & Okinda, O. (2018). Changing labour power on smallholder tea farms in Kenya. *Competition and Change*, *22*(1), 41–62. https://doi.org/10.1177/-1024529417742302

RTB. (2022). *2022 Türk Çay Sektörü Güncel Durum Raporu*. Rize Ticaret Borsası. https://www.rtb.org.tr/tr/cay-sektoru-raporlari

Saberi, H. (2010). *Tea: A Global History* (A. F. Smith, Ed.; First Edition). Reaktion Books Ltd.

Samarakkody, T., & Alagalla, H. (2021). Optimizing the multiple trip vehicle routing plan for a licensee green tea dealer in Sri Lanka. *Modern Supply Chain Research and Applications*, *ahead-of-print*. https://doi.org/10.1108/MSCRA-10-2020-0027

Saklı, A. R. (2008). *Türk Çayının Dünü Ve Bugünü: Çayın Bölge Tarihindeki Yeri ve Çaykur'un Üreticiye Devri İçin Bir Model Çalışması* (1. Basım). Kaknüs Yayınları.

Saklı, A. R. (2018). Cumhuriyet'le Yaşıt Bir Ürün: Rize Çayının Tarihçesi. In Z. Aslan & M. Arıkan (Eds.), *Cumhuriyet Döneminde Rize-I (1923-1950)* (pp. 242–300).

Saklı, A. R. (2019). Türk Çay Sektöründe Yasal Gelişim ve 1984 Serbestleştirmesi. *Eskişehir Osmangazi Üniversitesi İİBF Dergisi*, *14*(2), 511–534. https://orcid-.org/0000-0002-7681-9253

Sartor, V. (2007). All the Tea in China: The Political Impact of Tea. *American Journal of Chinese Studies*, *14*(2), 185–188.

Scholvin, S. (2020). Global Commodity Chains, Global Value Chains and Global Production Networks. In E. Vivares (Ed.), *The Routledge Handbook to Global Political Economy* (First Edition, pp. 174–193). Routledge. https://doi.org/10.-4324/9781351064545

Scholvin, S., Black, A., Diez, J. R., & Turok, I. (2019). *Value Chains in Sub-Saharan Africa* (S. Scholvin, A. Black, J. Revilla Diez, & I. Turok, Eds.). Springer International Publishing. https://doi.org/10.1007/978-3-030-06206-4

Scully, J. (2018). Jacobs Douwe Egberts Creates Joint Venture with Turkey's Ofcay. *FoodBev Media*. https://www.foodbev.com/news/jacobs-douwe-egberts-forms-joint-venture-with-turkish-firm-ofcay/

Song, E., Gress, D. R., & Andriesse, E. (2020). Global Production Networks and (Distributional) Regional Development: The Cinnamon Industry in Karandeniya and Matale, Sri Lanka. *Journal of South Asian Development*, *15*(2), 209–237. https://doi.org/10.1177/0973174120956496

Staritz, C. (2012). *Value Chains for Development? Potentials and Limitations of Global Value Chain Approaches in Donor Interventions* (No. 31; ÖFSE Working Paper). http://hdl.handle.net/10419/98802

Starosta, G. (2010). Global Commodity Chains and the Marxian Law of Value. *Antipode*, *42*(2), 433–465. https://doi.org/10.1111/j.1467-8330.2009.00753.x

Sturgeon, T. J. (2001). How Do We Define Value Chains and Production Networks. *IDS Bulletin*, *32*(3), 9–18. https://doi.org/10.1111/j.1759-5436.2001.mp3200-3002.x

Sushil. (2018). Valuation of Flexibility Initiatives Along the Value Chain. In J. Connell, R. Agarwal, Sushil, & S. Dhir (Eds.), *Global Value Chains, Flexibility and Sustainability* (pp. 3–14). Springer Singapore. https://doi.org/10.1007/978-981-10-8929-9_1

Şahin, Ç. E. (2018). Türkiye Tarımında Kooperatifçilik Alternatifini Yeniden Düşünmek. *Politik Ekonomik Kuram Sosyal Bilimler Dergisi*, *2*(2), 59–76.

Tarım ve Orman Bakanlığı. (2022). *2021 İdare Faaliyet Raporu*. Tarım ve Orman Bakanlığı. https://www.tarimorman.gov.tr/Duyuru/1553/Tarim-Ve-Orman-Bakanligi-2021-Yili-Idare-Faaliyet-Raporu-Yayimlandi

TeaCupsFull. (n.d.). *What is CTC Tea?* Retrieved December 25, 2022, from https://www.teacupsfull.com/blogs/blog/what-is-ctc-tea

Thirst. (2022). *Human Rights in The Tea Sector: The Big Picture, Part 1: Literature Review*. The International Roundtable for Sustainable Tea. https://media-.business-humanrights.org/media/documents/thirst_hria_lit_review_final.pdf

Thór Jóhannesson, G., & Bærenholdt, J. O. (2020). Actor–Network Theory. In *International Encyclopedia of Human Geography* (pp. 33–40). Elsevier. https://doi.org/10.1016/B978-0-08-102295-5.10621-3

Tikbaş Apak, F. (2022). Lipton Örneğiyle Kültür Kodu ve Global Pazarlama İlişkisi. *Karadeniz Araştırmaları*, *XIX* (75), 847–859.

Tufanoğlu, E. (2017). *Türkiye'de Çay Üretimi, Tüketimi ve Sorunları* [Master's Thesis, Giresun University].

Türkyılmaz, K. (2015). *Türkiye'de Çaylık Alanların ve Üretici Sayılarının İstatiksel Analizi*. Çay İşletmeleri Genel Müdürlüğü, Atatürk Çay Ve Bahçe Kültürleri Araştırma Enstitüsü Müdürlüğü https://www.caykur.gov.tr/CMS/Design/-Sources/UnitePCKYSDokumanlari/76_75.pdf

Ul Haq, S. (2019). *Factors Influencing Shareholder Farming System in Tea Production and Its Effects on Sustainability in Rize Province* [Doctoral Dissertation, Ondokuz Mayıs University].

Ulukan, U. (2021). Türkiye'de Çay Tarımında Yeni Dinamikler ve Yeni Sorular. In F. Genç & Ö. Şendeniz (Eds.), *Çaydan Öte: Tarladan Demliğe, Mekanda ve Bellekte Çay (Beyond Tea: From Field to Pot, Tea in Space and Memory)* (First Edition, pp. 23–50). Gola Yayınları.

UN. (2019). *Human Development Index (HDI)*. United Nations Development Programme, Human Development Report 2020. https://ourworldindata.org-/human-development-index

Vicol, M., Fold, N., Pritchard, B., & Neilson, J. (2019). Global Production Networks, Regional Development Trajectories and Smallholder Livelihoods in the Global South. *Journal of Economic Geography*, *19*(4), 973–993. https://doi.org-/10.1093/jeg/lby065

Wei, Y. H. D. (2010). Beyond New Regionalism, beyond Global Production Networks: Remaking the Sunan Model, China. *Environment and Planning C: Government and Policy*, *28*(1), 72–96. https://doi.org/10.1068/c0934r

Weller, S. (2006). The Embeddedness of Global Production Networks: The Impact of Crisis in Fiji's Garment Export Sector. *Environment and Planning A: Economy and Space*, *38*(7), 1249–1267. https://doi.org/10.1068/a37192

Worldbank. (2022). *GDP per capita, PPP (current international $) | Data*. The World Bank Data. https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD

Xu, H., Hsu, W.-L., Lee, Y.-C., Chern, T.-Y., & Luo, S.-W. (2020). Information Application of the Regional Development: Strategic Couplings in Global Production Networks in Jiangsu, China. *Information*, *11*(9). https://doi.-org/10.3390/info11090420

Yang, C. (2013). From Strategic Coupling to Recoupling and Decoupling: Restructuring Global Production Networks and Regional Evolution in China. *European Planning Studies*, *21*(7), 1046–1063. https://doi.org/10.1080/09654313.2013.733852

Yang, D. Y.-R., & Coe, N. M. (2009). The Governance of Global Production Networks and Regional Development: A Case Study of Taiwanese PC Production Networks. *Growth and Change*, *40*(1), 30–53.

Tea Law Proposal, (2022) (testimony of Hayati Yazıcı, Osman Aşkın Bak, Muhammed Avcı, Adnan Günnar, Bahar Ayvazoğlu, Muhammet Balta, Salih Cora, Cemal Öztürk, Kadir Aydın, & Sabri Öztürk). https://www.tbmm.gov.tr/Yasama-/KanunTeklifi/318558

Yeni Şafak. (2019, October 16). Japonların çay seremonisindeki yeşil çay pudrası, Türkiye'de üretildi. *Yenişafak*. https://www.yenisafak.com/foto-galeri/ekonomi/japonlarin-cay-seremonisindeki-yesil-cay-pudrasi-turkiyede-uretildi-2035-338?page-=1

Yeung, G. (2016). The Operation of Global Production Networks (GPNs) 2.0 and Methodological Constraints. *Geoforum*, *75*, 265–269. https://doi.org/10.1016/-j.geoforum.2016.07.017

Yeung, H. W. (2009). Regional Development and the Competitive Dynamics of Global Production Networks: An East Asian Perspective. *Regional Studies*, *43*(3), 325–351. https://doi.org/10.1080/00343400902777059

Yeung, H. W. (2015). Regional Development in the Global Economy: A Dynamic Perspective of Strategic Coupling in Global Production Networks. *Regional Science Policy & Practice*, *7*(1), 1–23. https://doi.org/10.1111/rsp3.12055

Yeung, H. W. (2021). The Trouble with Global Production Networks. *Environment and Planning A*, *53*(2), 428–438. https://doi.org/10.1177/0308518X2-0972720

Yıldırım Şahin, E. (2020). Doğu Karadeniz'de Bir Kolektif Dayanışma Çabası: Hopa Çay Kooperatifi. *Journal of Sociological Research Cilt*, *23*(2), 357–391.

Yıldırım, U. D. (2016). Karadeniz'de Çay ve Fındık Üretiminde Göçmen İşgücünün Etnikleşme Süreçleri. *Karadeniz Araştırmaları*, 13 (52), 191-210. Retrieved from https://dergipark.org.tr/tr/pub/karadearas/issue/68251/1065013

Yılmaz, S. (2019). *Çay Üretiminin Ekonomik Analizi: Rize İli Kalkandere İlçesi Örneği* [Master's Thesis, Namık Kemal University].

Yu, X., Sun, D., & He, Y. (2020). Emerging Techniques for Determining the Quality and Safety of Tea Products: A Review. *Comprehensive Reviews in Food Science and Food Safety*, *19*(5), 1–26. https://doi.org/10.1111/1541-4337.12611

Yüceer, S. E., Tan, S., & Semerci, A. (2020). Türkiye'de 2000-2020 Döneminde Tarımsal Destekleme Politikalarının Gelişiminin İncelenmesi. *ÇOMÜ LJAR*, *1*(2), 36–46.

Yüksel, E. (2020, October 27). Çaykur, Varlık Fonu'na Devredildiğinden Beri Zarar Ediyor. *Doğruluk Payı*. https://www.dogrulukpayi.com/bulten/caykur-turkiye-varlik-fonu-na-devredildiginden-beri-zarar-ediyor

Yurtoğlu, N. (2018). Türkiye Cumhuriyeti'nde Çay Yetiştiriciliği ve Çay Politikaları (1923-1960). History Studies International Journal of History, 10(8), 209–232. https://doi.org/10.9737/hist.2018.671

Zihnioğlu, A. (1998). *Bir Yeşilin Peşinde* (1. basım). TÜBİTAK Popüler Bilim Kitapları.