

**MARMARA UNIVERSITY  
INSTITUTE OF SOCIAL SCIENCES**

**DEPARTMENT OF ECONOMIC HISTORY  
PH.D. THESIS**

**THE INSTITUTIONAL TRANSFORMATION OF OTTOMAN PALACE CRAFTSMEN  
(1779–1850)**

**FATMA BETÜL YAHŞI  
THESIS ADVISOR: ASSOC. PROF. DR. GÖKÇEN COŞKUN ALBAYRAK**

**ISTANBUL**

## **Abstract**

This paper analyzes the institutional and organizational transformation of artisan groups involved in supplying goods and services to the Ottoman palace between the late eighteenth and mid-nineteenth centuries. Drawing on the framework of New Institutional Economics, the study examines how changes in transaction costs, contracting arrangements, and enforcement mechanisms reshaped the governance of palace procurement during a period of profound political and economic uncertainty.

The analysis focuses on the transition from the Ehl-i Hiref (a centrally organized, palace-based production unit) to decentralized guild production and, eventually, to earning dominated by independent merchants. The paper argues that this organizational substitution reflected attempts by the palace to economize on transaction and monitoring costs under weakening central control, while simultaneously altering the incentives and constraints faced by producers. In particular, the growing reliance on guilds and non-Muslim merchants generated more market-oriented exchange relations but weakened long-term investment incentives and organizational scaling.

The study further examines whether these institutional arrangements enabled capital accumulation among palace suppliers and evaluates their implications for broader processes of economic development. By linking purchasing institutions to patterns of reinvestment, the paper contributes to debates on why market integration in the Ottoman Empire did not translate into capitalist industrialization.

These data allow for a systematic examination of organizational change, supplier composition, and payment structures over time. The findings illustrate how institutional change can lead to increased market reliance without generating the complementary organizational conditions necessary for sustained capital accumulation.

## INTRODUCTION

The Ottoman Empire maintained a relatively stable and strong position in terms of bureaucracy, organization, and administration until its final years. It owed this success to the solid economic and social institutions that formed its foundation. These institutions provided flexibility according to the relevant geography and era, and where necessary, facilitated the reestablishment of order. It is evident that the same adaptability was present in the guild system, one of the Ottoman Empire's most fundamental economic institutions. Contrary to views that characterize the Ottoman Empire as a static and feudal state, it is evident that institutions such as the Ehl-i Hiref organization—the palace's own production unit—the guild system, and market-oriented merchants could take on different forms according to the needs of each period. Within this framework, the primary objective of our study is to examine, analyze, and document—using archival sources—the institutional transformations of the guilds, merchants, and related actors who engaged in economic relations with the Ottoman palace during the relevant periods. This transformation will be evaluated and analyzed within the scope of economic history, grounded in the framework of new institutional economics. Another topic we aim to examine is the identification of actors who entered direct economic relations with the palace. Throughout the research, under the assumption that entering into economic relations with the palace required significant political and economic power, we seek answers to questions such as whether these actors were involved in the wealth accumulation process, and if so, to what extent they contributed to capital accumulation and in which areas the capital was invested. Consequently, our study has two central questions. The first is how institutional transformation within the Ottoman industrial production system unfolded within the framework of the palace's artisan-merchant relationships; the second is where the actors who entered into economic relations with the palace stood in the process of capital accumulation.

As a result of our archival research focused on the relationship between the palace and the craftsmen, we have identified two types of archival document series in the Topkapı Palace Museum archives that will serve as the primary source group. The first of these, and the type of document that will form the foundation of this study, is the Craftsmen Summary Ledgers. Since this document type represents the primary source group of the thesis, it will be described in greater detail below. The second document type consists of the account sheets of miscellaneous artisans.

These sheets provide detailed information regarding the type of goods involved in serial trade, their unit price, and the quantity purchased.

Our study will primarily be conducted using the summary ledgers of artisans found in the TS.MA.d collection of the Topkapı Palace Archives, covering the years 1779–1850. The ledgers were generally kept in the form of monthly records, maintained regularly over a 12-month period within the specified timeframe. These ledgers have been transcribed from Ottoman Turkish, creating a significant series that can be utilized in analyses of Ottoman economic history.

Analysis of the newly created dataset revealed that, starting in 1779, the Ottoman palace initially engaged in trade primarily with its own units and artisan groups working exclusively for it; however, in later periods, there was a shift in the types of actors entering into relations with the palace, moving from artisans—who could be characterized as more static actors—toward merchants representing market-oriented economic actors. This situation indicates a transformation in the palace’s production system and the beginning of meeting its needs through external sources. Furthermore, the intensification of commercial relations with external markets during this period is a key factor in this sectoral shift. Since the period under examination was a time of significant institutional transformation for the Ottoman Empire, the documents at our disposal are crucial for determining the direction and nature of this institutional transformation.

In order to determine the exact institutions where the recipients of payments were employed—as we will be using the guild summary ledgers as our primary archival source—research was conducted using secondary literature on the production units with which the Ottoman Palace maintained commercial relations. Within this framework, it was observed that the institutions producing goods for the Ottoman Palace could essentially be summarized into three groups. The first is the palace arts organization referred to in archival documents as Ehl-i Hiref-i Hassa; the second consists of independent artisans affiliated with guilds; and the third comprises merchants based in the market. Ehl-i Hiref-i Hassa is an organization comprising salaried workers who produced goods directly for the palace. The workers in this organization belonged to the palace’s Birun staff and were directly subordinate to the treasurer. The Ehl-i Hiref organization maintained a serious and robust structure for many years to meet the needs of the Ottoman palace.

Representing a large organization with over forty divisions and more than a thousand employees during certain periods, the Ehl-i Hiref organization lost its effectiveness by the late 18th century, and the palace's needs began to be met primarily by the artisans and merchants affiliated with the guilds mentioned above as the third group. The fact that the documents examined in our study fully cover the final periods of the Ehl-i Hiref organization makes the examination and analysis of this transformation in palace production particularly intriguing. Considering factors such as changes in consumption patterns, the decline of traditional production, and the intensification of Western trade during this period, this sectoral shift represents a case study of institutional transformation within the Ottoman production system.

In the Ottoman Empire, the processes of capital accumulation progressed in a different direction and at a different pace than in Western Europe, shaped by the prevailing economic mindset. First and foremost, the guild system—which represented the production market in the Ottoman Empire—had a structure based on mutual solidarity rather than competition. This structure was not limited to purely economic objectives; it served to maintain a balance in both the production structure and the social order. The state controlled the guilds and artisan organizations through mechanisms such as price controls and quotas. Members who failed to comply with the organization's economic or ethical rules were punished or expelled from the organization. Consequently, the absence of competition in the production market and the active presence of control mechanisms prevented the emergence of a capital accumulation process in the modern sense. However, when evaluated at the individual level, although these control mechanisms were in place and the intergenerational transfer of wealth was hindered by practices such as confiscation, it is known that a group possessing significant wealth did exist. The second primary objective of our study is to track and analyze the wealth accumulation process through archival sources, focusing on relationships established with the palace. Our central hypothesis is that entering into economic relationships with state officials would have a positive impact on wealth accumulation for individuals or groups. Consequently, the actors who received very high payments in the documents we examined will be researched using archival sources, and the study will address questions such as how the wealth accumulation processes progressed, to what extent the economic relationships with the palace provided benefits, and in which sectors the acquired wealth was invested. While researching the job descriptions of the individuals encountered in the

records, it became apparent that the furrier sector could be particularly relevant to our topic. This is because furriers were observed to be among the wealthiest segments of society. A master furrier's wealth must be sufficient to maintain an adequate supply of furs. Archival sources frequently indicate that financially powerful furriers were regarded as lenders within society. Consequently, there are examples suggesting a connection between the fur trade and the moneylending institution. It has also been proven through archival sources that this group lent money not only to individuals but also to Orthodox clergy. It is well known that furriers, who played such a significant role in financing the Orthodox community, undoubtedly held a certain degree of political power as well. In this study, we will attempt to analyze the process of personal wealth accumulation among Ottoman court artisans through these and similar examples.

The theoretical framework of our study will be based primarily on Institutional Economics, and more specifically on Douglass C. North's New Institutional Economics. North defines institutions as "the rules of the game played in a society." He also states that "incorporating institutions into economic theory and economic history is one of the necessary steps required to advance this theory and the writing of history." In a state like the Ottoman Empire, where the issue of centralized state organization has been approached with seriousness for many years, examining the balance or imbalance between formal and informal constraints—and institutional transformation within this framework—is also of great importance. The Ehl-i Hiref organization was established during the reign of Mehmed II in 1526 and had lost its function by the end of the 18th century. The documents we examined represent the period from 1779 to 1850, encompassing the organization's final years. Consequently, it appears that we possess an appropriate period and type of documentation to evaluate the organization's transformation and the subsequent evolution of production for the palace from the perspective of institutional change and transformation. In our documents, it is observed that from the early periods to the later ones, division chiefs and merchants were present together. Consequently, it is evident that the palace's needs were met not only by the palace craftsmen's guild but also, when necessary, by merchants and external craftsmen. In the ledgers we examined, it is observed that over time, the number of section chiefs decreased significantly while the number of merchants increased substantially. Considering that the palace had previously established specialized production workshops for its own needs, it is possible to speak of an institutional transformation in the procurement of needs, shifting from workshops to commercial

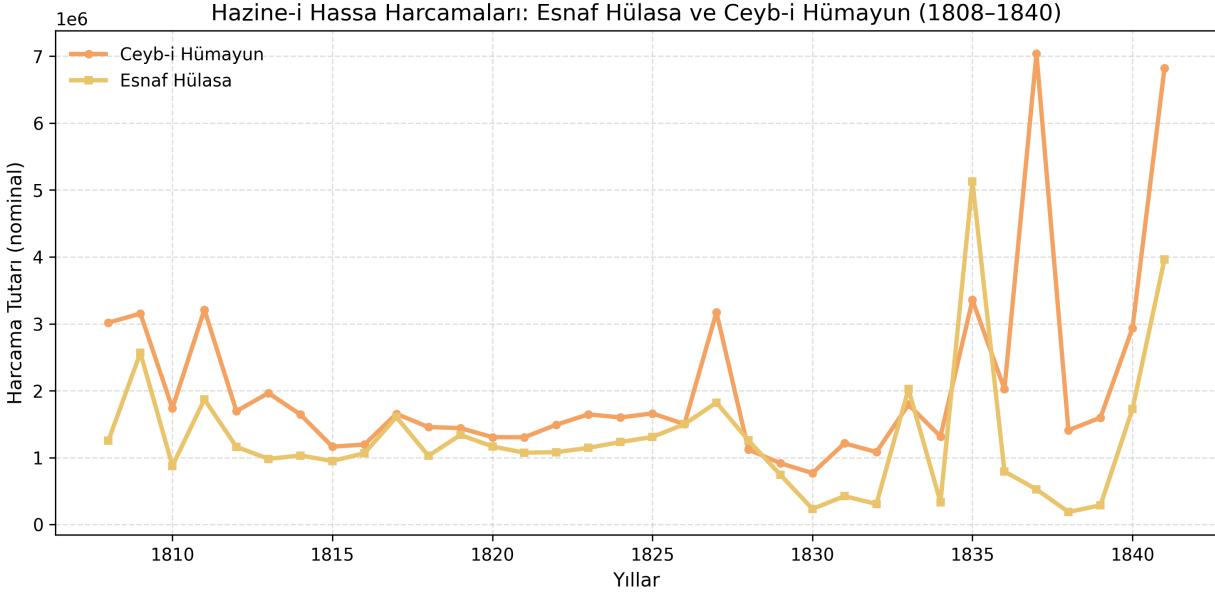
relationships. North states that the underlying reason for institutional transformations is that when the transaction costs of formal constraints increase, there will be a shift to different formal constraints with lower transaction costs, or the existing formal constraints will undergo change. One of the central hypotheses of our study is that the underlying reason for the transition from a production system dominated by palace artisans to commercial relationships dominated by merchants was the emergence of lower-cost production methods that began to influence the Ottoman geography by the late 18th century. Consequently, one of the primary objectives of our study is to examine this institutional transformation occurring within the palace's production system. To empirically substantiate these findings observed in the data, economic tools such as the HHI index and the Bai-Perron test will be applied.

## **AN ANALYSIS OF THE REPRESENTATIONAL CAPACITY OF THE CRAFTSMEN'S SUMMARY LEDGERS REGARDING PALACE EXPENDITURES**

Although the Craftsmen's Summary Ledgers are part of the Hazine-i Hassa (Palace Accounts), they do not represent all the treasury's expenditure items; rather, they represent only a portion of the palace's economic transactions. Therefore, testing the representational capacity of the Artisans' Summary Ledgers regarding the palace's expenditures is one of the important methodological steps. In this context, the revenue and expenditure accounts of the Ceyb-i Hümayun Treasury for the years H.1223–1255/M. 1808–1839, covering the revenue and expenditure accounts of the Ceyb-i Hümayun Treasury, has been used as a reference series.

The Ceyb-i Hümayun Treasury has expenditures in many different categories beyond the furnishing's expenses recorded in the Esnaf summary ledgers. At the same time, the Esnaf Hülasa ledgers do not represent only Ceyb-i Hümayun expenditures but also include expenses from the Enderun-u Hümayun and other sections of the palace. For this reason, an analysis of what percentage of Ceyb-i Hümayun expenditures the Esnaf Hülasa ledgers represent would not be very meaningful. The most significant commonality between the series of payments made to palace artisans and the Ceyb-i Hümayun expenditure series is that both reflect the palace's expenditures. Consequently, analyzing the movement of these two series together will demonstrate the representational power of the artisans' summary ledgers.

**Figure 1: Amount of Expenditures Recorded in the Imperial Treasury and Tradesmen's Summary Ledgers Between 1808-1840**



The purpose of the representativeness analysis is not to determine whether the expenses of the Esnaf Hülasa fully or partially overlap with those of the Ceyb-i Hümayun, but rather to examine the alignment of long-term trends, fluctuations, and breaks. In this context, Figure 1 was created to illustrate the trends in the expenses of the Esnaf Hülasa and the Ceyb-i Hümayun. Subsequently, the series were subjected to a logarithmic transformation, modeled while accounting for the year variable to verify whether they were influenced by time-dependent expansion effects, and the degree of co-movement between the series was tested using regression analysis.

$$\ln(\text{Ceyb-i Hümayun}) = \alpha + \beta_1 \ln(\text{Esnaf Hülasa}) + \beta_2 \text{Year} + \varepsilon_t$$

The analysis revealed that even when the effect of time is held constant, payments from the Esnaf Hülasa are positively and significantly correlated with Ceyb-i Hümayun expenditures ( $\beta \approx 0.40$ ). The fact that the coefficient of the time variable ( $\beta \approx 0.014$ ) has a relatively limited explanatory power indicates that changes in palace treasury expenditures are linked not merely to chronological progression but to fluctuations in institutional procurement and expenditure

mechanisms. Upon examining the p-values of this analysis ( $p > 0.001$ ), it is evident that the results are statistically significant.

Source	SS	df	MS	Number of obs	=	34
Model	<b>2.87321948</b>	<b>2</b>	<b>1.43660974</b>	F(2, 31)	=	<b>8.25</b>
Residual	<b>5.40048053</b>	<b>31</b>	<b>.174209049</b>	Prob > F	=	<b>0.0013</b>
				R-squared	=	<b>0.3473</b>
				Adj R-squared	=	<b>0.3052</b>
Total	<b>8.27370001</b>	<b>33</b>	<b>.250718182</b>	Root MSE	=	<b>.41738</b>

lnceyb	Coefficient	Std. err.	t	P> t	[95% conf. interval]	
lnesn	<b>.4013227</b>	<b>.1014815</b>	<b>3.95</b>	<b>0.000</b>	<b>.1943498</b>	<b>.6082956</b>
year	<b>.014299</b>	<b>.0075423</b>	<b>1.90</b>	<b>0.067</b>	<b>-.0010836</b>	<b>.0296816</b>
_cons	<b>-17.23988</b>	<b>14.18176</b>	<b>-1.22</b>	<b>0.233</b>	<b>-46.16376</b>	<b>11.684</b>

In the next step, the time trend was removed from both series to examine the relationship between the residuals, revealing that the relationship between the two series was even stronger when independent of the time effect ( $r \approx 0.58$ ).

	lnceyb~s lnesn~s	
lnceyb_res	<b>1.0000</b>	
lnesn_res	<b>0.5791</b>	<b>1.0000</b>

When these findings are evaluated, the Esnaf Hülasa ledgers emerge not as a dataset representing the entirety of the Hazine-i Hassa expenditures, but rather as a subcomponent that reliably reflects the direction and periodic fluctuations of the palace's institutionalized expenditure dynamics. This demonstrates that the Esnaf Hülasa ledgers serve as a highly representative and reliable data source within the context of institutional transformation.

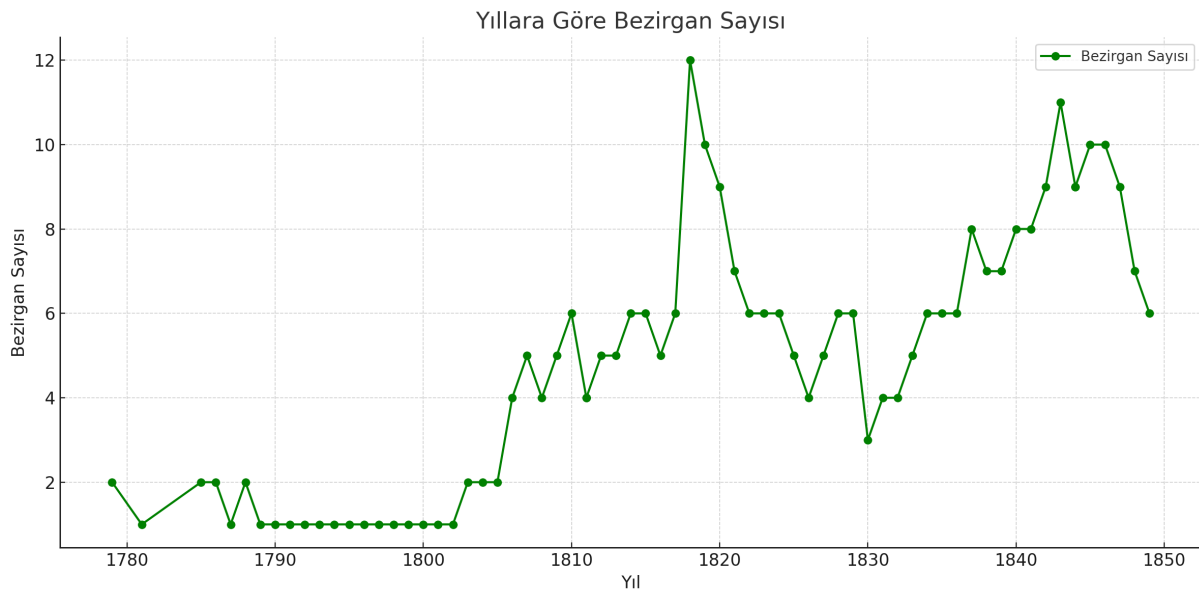
# ANALYTICAL METHODS AND A NEW PERSPECTIVE ON INSTITUTIONAL ECONOMICS

## HHI (HERFINDAHL–HIRSCHMAN INDEX) CONCENTRATION INDEX

The HHI (Herfindahl–Hirschman Index) is primarily used to analyze market concentration and the structure of competition in the economy. It is applied to determine the extent to which production, sales, and revenues in a market are concentrated among a certain number of firms. This analysis is considered appropriate for examining the institutional transformation within the palace's artisan supply chain, which forms the basis of our study.

An examination of the artisans' ledgers revealed that in the early periods, the palace's supply chain was dominated by palace officials such as the Chief Tailor, Chief Dyer, Chief Feltmaker, and Chief Hatmaker, whereas in later periods, the supply chain was increasingly dominated by independent merchants. However, no numerical analysis of this shift in terms of the number of actors had been conducted. The HHI concentration index will explain the institutional transformation in the supply chain through empirical findings, showing low market concentration in the early years of the 1780–1850 period and high market concentration in the later years.

**Figure 2: Distribution of Merchant Guilds by Year**



A situation where the HHI index is high indicates a high degree of concentration in the palace's supply chain, where a small number of actors dominate the market, supplies are provided by the palace's own officials, and there is low market integration and high administrative control. A low HHI index, on the other hand, indicates a supply chain dominated by many independent merchants and relatively higher market integration. In this context, during periods with high HHI values, the palace manages transaction costs through central control, whereas during periods with low HHI values, the transaction costs of central control become higher than those of sourcing supplies from the market.

Although this index has not yet been implemented, it is believed to offer a compelling explanation of the institutional transformation in the palace supply system from the perspective of New Institutional Economics, and simultaneously holds the potential to be developed into a robust narrative of institutional transformation when supported by qualitative data from archival records (such as Guild Regulations, Qadi Registers, etc.).

## **BAI-PERRON STRUCTURAL BREAK TEST**

At the empirical level, the study is based on a unique dataset compiled from merchants' summary ledgers. These ledgers systematically record the identities of merchants supplying goods to the palace and the payments made to them. By converting these documents into a dataset, it is possible to conduct a comparative analysis of patterns in supplier concentration, payment distributions, and contractual relationships over time.

To identify these structural transformations, the study will employ the Bai–Perron multiple structural break test. This method allows for the internal detection of multiple structural breaks without being constrained by predefined breakpoints within the time series. In this regard, it is particularly well-suited for historical contexts where institutional change cannot be reduced to specific singular events. Within the scope of the analysis, meaningful breaks in indicators such as supplier concentration and payment distribution will be identified to determine the phases of transformation occurring in the system's structure.

These structural breaks will be interpreted not merely as statistical changes but as indicators of deeper institutional transformations. At this point, the analysis is situated within the New Institutional Economics framework and explained through concepts such as transaction costs, governance structures, and contract forms, drawing on historical data. The central assumption is that the observed changes in concentration and payment patterns reflect transformations in the state's methods of organizing procurement processes, managing uncertainty, and controlling opportunism.

Through this approach, the study aims to explain institutional change via a mechanism-based analysis and to provide a rich and multifaceted narrative by linking it to historical contexts. The creation of a dataset based on original archival data, the quantitative identification of structural breaks, and the interpretation of these findings within a theoretical framework constitute the study's primary contribution.