Quantitative Approaches to Ottoman Fatwa Collections

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Abstract
In their joint essay, Metin Coşgel and Boğaç Ergene make the case for “a pluralistic approach to the study of Islamic legal history,” through the lens of law and economics and other types of quantitative analysis. Regression analysis, they suggest, provides especially useful approaches suited to interdisciplinary studies of historical events. To illustrate, the authors describe the findings of their previous scholarship on Ottoman court records, for which they coded data on court petitions and were able to arrive at generalizable conclusions about access to early modern courts. Noting the uptick in digitized primary sources in the field, they predict an increase in Islamic legal scholarship that integrates quantitative analysis.
In this essay we make a case for the benefits of a pluralistic approach to the study of Islamic legal history, with a special focus on the merits of blending traditional historical approaches with methods of economic and quantitative analysis. Many of the recent innovative developments in humanities and social sciences have come from pluralistic methodologies that combine the tools of multiple disciplines into a coherent framework. In the digital age, scholars of Islamic legal history are finding it ever more feasible to harvest data from archival sources and to analyze them with highly sophisticated techniques, often by combining traditional methods with new capabilities originally developed in other disciplines. Numerous new initiatives are currently underway, such as the digital humanities and data science initiatives of the Program in Islamic Law at Harvard University and the İstanbul Kadi Sicilleri project of the Center for Islamic Studies in Turkey aimed at digital publication of original and transliterated copies of the qāḍī registers of Istanbul courts.

We expect these initiatives to enhance Islamic legal historiography greatly by informing formal studies of the law with searchable historical manuscripts, jurisprudential opinions, and actual court documents. By providing digital open access to thousands of legal texts and archival documents, these initiatives not only facilitate first-time use by those who previously could not obtain them easily but also provide innovative opportunities for experienced users who can now analyze them with cutting edge computational methodologies (e.g., “distant-reading” of textual material). In general, we would expect the field of Islamic law and history to grow significantly in the near future as other scholars and organizations follow these leads to unveil new data and develop novel techniques for analysis.

Methodological pluralism is necessary to tackle the complexity and contextuality of numerous research topics in the study of Islamic law. Important questions in the field often intersect with other disciplines, as can be seen in intellectual debates surrounding the Islamic legal perspective on constitutionalism, religious diversity, socio-economic justice, business finance, comparative law, criminal codes, and gender roles and rights.
Researchers clearly need to be fluent in theoretical concepts and analytical tools from other disciplines to engage in these debates. Moreover, many contemporary research questions need to be supported by empirical evidence, often requiring the use of advanced quantitative methods.

Combining pluralistic methodologies with economic and quantitative analysis of the law may currently be more feasible and effective than ever in the study of Islamic law. The law and economics approach has already gained maturity and prestige in legal studies, and sophisticated quantitative methods have likewise become indispensable elements of recent economic analysis. In addition, thanks to numerous digital humanities and data science initiatives in progress, interested scholars can count on greater availability of archival records and numerical data for research.

**Law and Economics**

A key component of methodology is the theoretical perspective that guides inquiry. In our recent book titled *The Economics of Ottoman Justice: Settlement and Trial in the Sharia Courts* (Cambridge University Press, 2016), we examined legal practice in a provincial Ottoman town called Kastamonu in the late seventeenth and eighteenth centuries. For this analysis, we found it extremely useful to be guided by the tools and concepts of the law and economics literature. Developed in the last century in a collaborative effort by social scientists and legal scholars, this approach has grown into a mature and dominant area of specialization in legal scholarship, with vast applications for current and historical legal systems worldwide.

Despite its dominance, the law and economics approach has not gone without criticism. Early applications typically relied on standard neoclassical assumptions regarding human behavior and motivations, which has come under attack as being too simplistic and controversial. Critiques have also questioned efficiency as the criteria used in evaluating the optimality of outcomes and policies, charging it as being too narrow to con-
sider the plurality of desirable characteristics (e.g., fairness and justice) of a legal system.

In response to these criticisms, researchers in the law and economics movement have broadened perspective by adopting techniques and insights from other, even competing, traditions. Although some of the earlier applications relied on simple behavioral assumptions regarding self-interest and unbounded rationality, later studies have developed more sophisticated models that incorporate numerous cognitive and motivational variations among individuals and across cultures. In the same vein, whereas early works focused on the legal norms and institutions of contemporary western societies, more recently scholars have extended the analysis to other social and historical settings.

We believe that a pluralistic methodology that includes insights from the law and economics literature would be highly appropriate for various research projects in Islamic legal historiography. The main advantage of this approach would be to think systematically about the abilities of individuals to make legal decisions, availability of methods of dispute resolution, efficiency of court procedures and outcomes, economic effects of laws and fatwās, and various other issues regarding legal behavior and institutions. Law and economics scholars would also benefit from this exchange by gaining insights into the workings of a historical non-western legal system.

**Quantitative Analysis**

Another key component of methodology is the type of technique used in the collection and analysis of data. In our analysis of Ottoman court records, we used a pluralistic approach that combined traditional historical research with quantitative methods. Building on the insights of the cultural turn and the strengths of historical scholarship, we developed rigorous techniques designed specifically for the unique legal, contextual, and linguistic characteristics of court records. For example, we introduced novel categories of analysis to classify court clients
into groups and used quantitative techniques to evaluate how differences in gender, religious affiliation, and socioeconomic status influenced legal interactions and outcomes. Such an approach allowed us to go beyond studying microhistories of selected (possibly unrepresentative) legal disputes and instead observe, with greater precision and confidence, broad patterns in behavior and outcomes among all court participants.

For systematic investigation of complicated empirical questions, such as why parties took their disputes to court (rather than settle without trial) and who won at trial, we used regression analysis, the most widely used tool of quantitative research. Regression analysis is an indispensable component of systematic pluralistic scholarship for various empirical questions in Islamic legal historiography. Given an empirical relationship of interest between two variables, such as legal rights and social outcomes, regression analysis would force the researcher to think carefully about the hypothesized direction of causality between these variables, consider other variables involved, and specify the functional form (e.g., logarithmic, quadratic) of their relationship. By using data to estimate the parameters of this relationship, with suitable controls for other variables, the researcher would simply refer to the signs, magnitudes, and standard errors of the coefficients of variables of interest to assess the direction, strength, and significance of their effects on the outcome.

Of course, a quantitative approach is not suitable for all types of research questions in Islamic legal historiography. To begin with, quantification may not be possible for various phenomena being studied. Likewise, measurement errors in the data may be too serious to make them appropriate for useful analysis. Although these concerns may apply to many research questions in the field, we nevertheless believe that quantitative methods are entirely appropriate for numerous other important research questions. Ultimately, the proof of the pudding will be in the eating for each quantitative application.
LEGAL PRACTICE IN KASTAMONU COURTS: AN ILLUSTRATION

For our study of legal practice in the sharia court of Ottoman Kastamonu, we identified the gender, honorific titles, religious markers, and family associations of individuals who came to court and relied heavily on quantitative techniques for analysis. Our results showed the importance of evidence use in litigation and uncovered significant differences in legal strategy and competency in the society. For example, a litigant could gain an advantage by assuming the burden of proof, a strategy used most successfully by religious title-holders. The likelihood of success was also higher for those who presented documents or *fatwās* at trial. Overall, our results indicated that members of prominent families and individuals with religious and pilgrim titles had a significant advantage over other groups in legal competency.

Our investigation uncovered significant changes in the court’s operations during the seventeenth and eighteenth centuries, such as a proportional increase in the court’s involvement in contractual interactions among the local population but a decrease in court involvement in dispute resolution. Our analysis of trial-settlement decisions also showed interesting results, such as a greater tendency of title-holding elites to litigate their disputes in court rather than settle before trial. Our investigation of factors affecting the litigants’ chances of success in an Ottoman court was the first systematic analysis of this question in the literature. Through this analysis, we were able to examine the importance of socioeconomic privilege and identify the circumstances under which men, Muslims, and members of upper classes had greater chances to dominate trials.

Going forward, we would expect scholars in the field of Islamic legal studies to have a greater ability to use quantitative analysis due to new archival records and numerical data being made available by various digital humanities and data science initiatives. Take the example of the digital publication of Ottoman era court records for Istanbul mentioned above. Initiated in 2008, the *İstanbul Kadı Sicilleri* project has...
so far digitally published original and transliterated copies of 100 registers of various courts in Istanbul. Freely available to researchers and the general public, these records include not just court proceedings regarding legal disputes and settlements, but various other items registered in court, including inheritance inventories, sales transactions, records of marriage and divorce, trade regulations, and copies of imperial communication. These records will clearly enable numerous quantitative studies of Istanbul’s legal history and the legal, social, and economic life of its inhabitants. Similar projects are underway in digitizing the court records of other towns, fatwās of prominent jurists, and books of religious scholars. Surely, these initiatives will soon expand scholarship in Islamic legal historiography significantly through vast amounts of new data amenable to pluralistic methodologies and quantitative analysis.