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Measures and Weights in Zanata Trade in the Central Maghreb during the Medieval Period: A Study of Economic Functions and Mechanisms for Regulating Commercial Transactions

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Abstract:

This study examines the system of measures and weights used in Zenata trade in the Central Maghreb during the medieval period, by highlighting their economic functions and their role in regulating commercial transactions. The study reveals the diversity of standard units used in Zenata markets, which combined measures and weights based on Islamic legal standards with units commonly used throughout the Maghreb, in addition to local units associated with the Zenata region, such as al-Habsa, al-Kamsha, and Amsatran. The geographical expansion of the Zenata and the diversity of markets, together with the interaction of local customs, contributed to variations in the quantities represented by certain units from one region to another.

The multiplicity of standards and the lack of precise regulation in some cases also led to the emergence of forms of fraud and short-weighing, through the manipulation of measures and weights and the use of various methods to reduce quantities and weights. The study highlights the role of the hisba institution, the political authorities, and jurists in monitoring measuring instruments, standardizing measurements, and confronting unlawful commercial practices, thereby contributing to the protection of traders' rights and strengthening confidence in the markets. The study concludes that measures and weights were not merely technical instruments; rather, they constituted part of an economic, social, and legal system that reflected the relationship between standards, custom, and authority in Zenata society during the medieval period.

Keywords: Measures and weights; Zenata; Central Maghreb; fraud and short-weighing; Hisba.

Introduction

Trade and markets constituted one of the fundamental components of economic activity in the Central Maghreb during the medieval period. The prosperity of commercial exchanges was closely associated with the diversity of commodities, the expansion of commercial networks, and the multiplicity of centers of settlement and movement. Commercial exchange did not depend solely on the availability of goods and markets; rather, it required the existence of standards regulating their quantities and weights and safeguarding the rights of those engaged in trade. Consequently, measures and weights acquired particular importance as instruments for organizing transactions, means of regulating value and quantity, and a field in which economic considerations intersected with Islamic legal rulings and local customs.

This issue assumes even greater significance when examined within the Zanatian sphere, which was characterized by its vast geographical extent, the multiplicity of its tribes and branches, and the diversity of its patterns of settlement and mobility between the regions of the Central Maghreb and the Saharan areas. This geographical expansion enabled the Zanati people to engage in a variety of commercial activities and also contributed to the proliferation and diversification of markets. This, in turn, was reflected in the nature of the standard units adopted in buying and selling transactions. The sources reveal that the Zanatis used measures and weights of Islamic legal, Maghrebi, and Eastern origins, alongside local units associated specifically with the Zanatian geographical sphere.

From this perspective, the study of measures and weights derives its significance not merely from being an investigation into units of measurement, but rather from constituting an entry point for understanding an aspect of the economic and social structure of Zanatian markets. It also makes it possible to uncover the relationship between the Islamic legal standard and local custom, as well as the extent to which the authorities and the muhtasibs (market inspectors) were able to standardize these measures and monitor their use. Furthermore, such a study provides an opportunity to examine manifestations of fraud and short-measuring or under-weighing which, in some cases, were associated with the multiplicity of quantities and differences in local customs, as well as the mechanisms adopted by jurists and muhtasibs to confront such practices.

Accordingly, the central research problem of this study revolves around the following question: How was the system of measures and weights organized in Zanatian trade in the Central Maghreb during the medieval period, what were its economic functions, to what extent did differences in standards contribute to the emergence of fraud and short-measuring or under-weighing, and what mechanisms did the authorities and the muhtasibs adopt to regulate commercial transactions? This central problem gives rise to a number of subsidiary questions, the most important of which are: What were the principal measures and weights known in Zanatian markets? What was the nature of the relationship between Islamic legal units and local units? Was the variation in quantities associated with the diversity of geographical areas and markets? What were the most prominent forms of fraud involving measures and weights? And what role did the muhtasib, the authorities, and the jurists play in monitoring these instruments and regulating their use?

To address these questions, the study adopts a historical-analytical approach, based on examining historical and jurisprudential texts, as well as works on nawāzil (juridical responsa) and hisba (market regulation and supervision). These sources are then analyzed and compared in order to identify the nature of the standards employed, their economic functions, and the mechanisms through which they were regulated. The study also draws upon comparisons between different units, taking into consideration their variations according to geographical setting, local custom, and historical context, rather than treating them as fixed and uniform units applicable to all regions.

Section One: The Zenatian Domain and Its Impact on Commercial Activity and the Multiplicity of Standards

The study of measures and weights in Zenatian trade does not require an extensive discussion of lineage and origins, except to the extent necessary to identify the geographical and social domain in which the Zenatian groups were active.[1] The Zenatians were characterized by their wide dispersion and the multiplicity of their clans and branches. Their presence extended across vast areas of the Islamic Maghreb, with the Central Maghreb emerging as one of their most important areas of settlement. Political and economic transformations also pushed some Zenatian groups toward the Saharan regions, particularly Touat, thereby contributing to the continuity of commercial links between the northern and southern parts of the Central Maghreb.[2]

This geographical expansion had a direct impact on commercial activity, as Zenatian groups became involved in various forms of exchange and benefited from their position along the routes connecting inland regions with urban centers and Saharan areas.[3] It is natural that differences in economic environments and the diversity of markets would lead to variations in the standard units employed, particularly in the absence of a single standard that was necessarily imposed upon all markets.[4]

This helps explain the presence of multiple units of measurement in Zenatian markets. Some were derived from the Sharīʿa-based standards, others were associated with local customs, while still others were influenced by the standards commonly used in neighboring commercial centers. In a manuscript by ʿAbd al-Karīm al-Maghīlī, a response concerning the adoption of new measures introduced by Muslim Arab merchants is found. He states: "The method of measuring by volume is that the measure and the measuring vessel should be set upright and level, then the material should be gently poured into it until it is completely full, without shaking, filling excessively, jolting, or employing any trick … Rather, the measuring vessel should be properly positioned and filled until its interior is full."[5] Therefore, the multiplicity of measures and weights should not be viewed as a random phenomenon, but rather as a reflection of the diversity of commercial spheres and the interaction of economic, jurisprudential, and customary influences.

Section Two: The System of Measures and Weights in Zenatian Markets

First: Measures of Capacity

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[1] Ibn Ḥawqal, Ṣūrat al-Arḍ [The Face of the Earth], Dār Maktabat al-Ḥayāt Publications, Beirut, 1992, p. 103.

[2] Abd al-Raḥmān ibn ʿAbd Allāh al-Saʿdī, Tārīkh al-Sūdān [History of the Sudan], Houdas Edition, Paris, 1981, p. 7.

[3] Al-Idrīsī, Nuzhat al-Mushtāq fī Ikhtirāq al-Āfāq [The Pleasure of Him Who Longs to Traverse the Regions of the World], Vol. 1, Maktabat al-Thaqāfa al-Dīniyya, Cairo, p. 257; Ibn ʿAmīra, Dawr Zanāta fī al-Ḥaraka al-Madhhabiyya bi-al-Maghrib al-Islāmī [The Role of the Zenatians in the Doctrinal Movement in the Islamic Maghreb], National Book Foundation, Algiers, 1984, p. 175.

[4] Ibn Khaldūn, Al-ʿIbar, Vol. 7, Dār al-Kitāb al-Lubnānī, Beirut, 1998, p. 15.

[5] Muḥammad ibn ʿAbd al-Karīm al-Maghīlī, Jawhar al-Maʿānī fīmā Thabata Ladā al-ʿUlamāʾ fī al-Awwal wa-al-Thānī [The Essence of Meanings Concerning What Has Been Established among Scholars Regarding the First and Second], manuscript, Sidi ʿAbd Allāh al-Balbālī Zawiya, Adrar, p. 4.

The source material reveals a clear diversity in the measures of capacity known in Zenatian markets. These included Sharīʿa-based units such as the mudd,[1] the ṣāʿ,[2]and the wasq,[3] alongside other units such as the qafīz, wayba, qadaḥ, qādūs, and qist. There were also measures whose use was associated with particular regions, such as the barshāla in Tlemcen, as well as others described as purely Zenatian measures, such as the habṣa, kamsha, and amsaṭran.[4]

The mudd occupied an important position within this system, as it was one of the Sharīʿa-based measures associated with the regulations governing acts of worship. Zenatian markets employed both the Prophetic mudd and the rural or Maghrebi mudd. The legal cases (nawāzil) cited in the source material indicate the existence of differences in the quantity represented by the mudd adopted in certain regions, reflecting the interaction between the religious standard and local custom.[5]

As for the ṣāʿ, it likewise appeared among the units of measurement circulating among the Zenatians. The source material indicates its use by some Zenatian clans, including Nafūsa, Banū Yifran, and Maghrawa, with reference also made to the Maghrawi ṣāʿ. These data demonstrate the ability of Sharīʿa-based units to spread into local areas and to be reappropriated and adapted according to the customs of each region.[6]

The Zanata also used the Qafiz[7], the quantity of which varied from one country to another. The source mentions its use in the Central Maghreb for measuring grains and liquids, alongside the use of the thumn as a fraction thereof[8]. The variation in the quantity of the Qafiz from one region to another reveals a fundamental problem that confronted commercial activity, namely, the lack of a fixed standard value for the same unit from one market to another[9].

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1 With the ḍamma and shadda, its plural is amdād. It is one of the Sharīʿa-based measures that has been used since the dawn of Islam and became widely employed in Medina. Anas, may Allah be pleased with him, reported: “The Prophet, peace and blessings be upon him, used to wash—or bathe—with a ṣāʿ up to five amdād, and he used to perform ablution with a mudd.” Al-Bukhārī, Ṣaḥīḥ al-Bukhārī, Book of Ablution, “Chapter on Performing Ablution with a Mudd,” Hadith No. 201, p. 62. See also: Muḥammad Ṣubḥī, Al-Īḍāḥāt al-ʿAṣriyya li-al-Maqāyīs wa-al-Makāyīl wa-al-Awzān wa-al-Nuqūd al-Sharʿiyya [Modern Clarifications of Sharīʿa-Based Measures, Weights, and Currency], Maktabat al-Jīl al-Jadīd, Sana'a, 2007, p. 113.

2 With the fatḥa on the ṣād, its plurals are aṣwāʿ, aṣwuʿ, and ṣīʿān. It is one of the measures whose origins can be traced back to ancient civilizations, based on the Qur'anic verse: “They said: ‘We have lost the king’s cup.’” (Qur'an, Sūrat Yūsuf, verse 71). See: Muḥammad Rawwās Qalʿajī and Ḥāmid Ṣādiq Qunaybī, Muʿjam Lughat al-Fuqahāʾ [Dictionary of Jurists’ Terminology], Dār al-Nafāʾis, Lebanon, 2nd ed., 1988, p. 167.

3 With the fatḥa on the wāw and sīn, it denotes combining one thing with another. In Mukhtār al-Ṣiḥāḥ, the wasq is defined as the load carried by a camel, while wiqr refers to the load carried by a mule or donkey. Its use is established in the time of the Prophet, peace and blessings be upon him, based on the report of Abū Hurayra, may Allah be pleased with him: “He permitted the sale of ʿarāyā by estimation, for less than five awsuq or five.” Al-Bukhārī, Ṣaḥīḥ al-Bukhārī, Book of Sales, “Chapter on Selling Fruit on Palm Trees,” Hadith No. 2192, p. 523; Muslim, Ṣaḥīḥ Muslim, Book of Sales, “Chapter on the Prohibition of Selling Fresh Dates for Dried Dates Except in the Case of ʿArāyā,” Hadith No. 1541, p. 386. See: Al-Rāzī, Mukhtār al-Ṣiḥāḥ, Vol. 1, Maktabat Lubnān, 1986, p. 300.

4 Mabrūk Muqaddam, Al-Faqāra fī Quṣūr Tawāt wa-Aḥwāzihā: al-Nashʾa wa-al-Taʿrīf [The Foggara in the Ksour of Touat and Their Surroundings: Origins and Definition], Office of University Publications, Algiers, 2016, pp. 171–174.

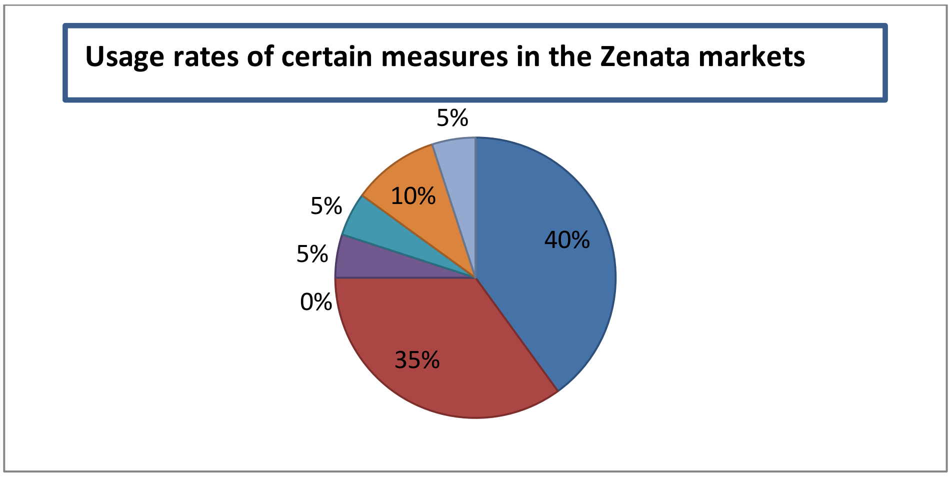
5 Ibn al-Ḥājj, Nawāzil Ibn al-Ḥājj al-Tujībī, edited and studied by Aḥmad Shuʿayb al-Yūsufī, Vol. 3, Publications of the Moroccan Association for Andalusian Studies, Tetouan, 2018, p. 479; Al-WanSharīsī, Al-Miʿyār, edited by a group of jurists under the supervision of Muḥammad Ḥajjī, Vol. 1, Ministry of Endowments and Islamic Affairs of the Kingdom of Morocco, Rabat, 1981, p. 381.

6 Bassām Kāmil ʿAbd al-Razzāq, Tilimsān fī al-ʿAhd al-Zayyānī (633–962 AH/1235–1555 CE) [Tlemcen during the Zayyanid Period (633–962 AH/1235–1555 CE)], Master’s Thesis, Department of History, An-Najah University, Nablus, 2002, p. 217.

7 It is one of the well-known units of measurement, with the plural forms uqfizah and qafizān. Its use was widespread during the pre-Islamic period, as evidenced by the poetry of Zuhayr ibn Abī Sulmā from the ṭawīl meter: “They bring you what they do not bring to their people … provisions from Iraq, from a qafiz of a dirham.” See: Muḥammad Ṣubḥī, al-Īḍāḥāt al-ʿAṣriyya lil-Maqāyīs wa-al-Makāyīl wa-al-Awzān wa-al-Nuqūd al-Sharʿiyya, Maktabat al-Jīl al-Jadīd, Sana'a, 2007, p. 100.

8 Qalʿajī, previous reference, p. 286.

9 Brunschvig, vol. 2, History of Ifriqiya in the Hafsid Period from the Thirteenth Century to the End of the Fifteenth Century, trans. Ḥammādī al-Sāḥilī, Dār al-Gharb al-Islāmī, Beirut, 1988, p. 262.



The system also included the waybah[1], wasq[2], irdabb[3], farq[4], ‘araq[5], qadah[6], qadus[7], qist[8], and others. This indicates the diversity of measurement units according to the nature of the commodities and the contexts in which they were used. The wasq, for instance, was associated with large quantities of grain and dates[9], whereas other units were used for liquids or for estimating specific quantities of food[10].

The local level of the measurement system is particularly evident in the habṣah, kamshah, and Amsṭarn. The source describes the habṣah as a purely Zanatian measure based on the amount that could be held in the fist of a man with an average-sized hand. The kamshah was larger than the habṣah, while the Amsṭarn was estimated at approximately half a kilogram. The source describes these units as arbitrary measures to which recourse was made in the absence of legally

[1] With a fatḥah over the wāw and a sukūn over the yāʾ, it is an ancient Egyptian unit of measurement and a fraction of the irdabb, which was called al-dawwār during the Fatimid period. Al-Qalqashandī, Ṣubḥ al-Aʿshā, vol. 3, Dār al-Kutub al-Miṣriyya, Cairo, 1921, p. 441.

[2] With a fatḥah over the wāw and sīn, it means joining one thing to another. According to Mukhtār al-Ṣiḥāḥ, the wasq means the load carried by a camel, whereas the wiqr refers to the load carried by a mule or donkey. Qalʿajī, previous reference, p. 379; al-Rāzī, Mukhtār al-Ṣiḥāḥ, vol. 1, Maktabat Lubnān, 1986, p. 300.

[3] Qalʿajī defines the irdabb as “the channel through which water flows over the surface of the earth.” According to al-Qāmūs al-Muḥīṭ, the irdabb is an Egyptian unit of measurement equivalent to twenty-four ṣāʿs or six waybāt. Qalʿajī, previous reference, p. 15; al-Fayrūzābādī, al-Qāmūs al-Muḥīṭ, p. 114; Ibn Manẓūr, Lisān al-ʿArab, vol. 1, Dār Ṣādir, Beirut, p. 416.

[4] With a fatḥah over the fāʾ and rāʾ, its plural is afrāq. With either a fatḥah or sukūn over the rāʾ, it refers to a well-known unit of measurement in Medina. Qalʿajī, previous reference, p. 213; al-Qāḍī ʿIyāḍ, Mashāriq al-Anwār ʿalā Ṣiḥāḥ al-Āthār, vol. 1, printed and published by al-Maktaba al-ʿAtīqa, Tunis; Dār al-Turāth, Cairo, 1978, p. 155.

[5] According to al-Muntaqā, the ʿaraq, with a fatḥah over the ʿayn, is a plaited basket, specifically the small basket from which the quffah was made. Jurists estimated its capacity at between fifteen and twenty ṣāʿs. It was a unit of measurement for solid commodities known to the people of the Hijaz both before and after Islam. Al-Muntaqā, vol. 2, previous source, p. 55.

[6] This unit was used to determine the amount subject to zakat. This is evident from al-Ḥaffār’s response to a question concerning the amount of zakat due on seventy-dirham coins, circulating currency in our region, and the legally prescribed ūqiyya among our awāqī. He answered: “Zakat is due today according to our qadahs when there are forty qadahs, and this is determined by measure, not by weight.” Al-Wansharīsī, al-Miʿyār, vol. 1, previous source, pp. 397–398.

[7] One of the units of measurement that was widely used in the Central Maghreb. It appears that the Zanata, who settled in Ténès, made extensive use of it. This can be understood from al-Bakrī’s statement: “The unit of measurement in the city of Ténès is the qadus, which is equivalent to three amdād according to the Prophet’s mudd.” Al-Bakrī, al-Masālik wa-al-Mamālik, edited by Jamāl Ṭalaba, vol. 2, Dār al-Kutub al-ʿIlmiyya, Lebanon, 2003, p. 62.

[8] With a kasrah over the qāf and a sukūn over the sīn, its plural is aqsāṭ. It is a unit of measurement; however, al-Harawī calls it a balance because it serves as an equivalent to the balance in distribution, which is why it was called qist. Qalʿajī, previous reference, p. 281; al-Harawī, al-Gharībayn fī al-Qurʾān wa-al-Ḥadīth, edited by Aḥmad Farīd al-Mazīdī, reviewed by Fatḥī Ḥijāzī, with an introduction by Muḥammad al-Sharīf and Kamāl al-ʿAnābī, vol. 1, Maktabat Nizār Muṣṭafā al-Bāz, Saudi Arabia, 1999, 5/1542.

[9] Al-Wansharīsī, al-Miʿyār, vol. 1, previous source, p. 376.

[10] Al-Qāḍī ʿIyāḍ, Tarājim Aghlabiyya, edited by Muḥammad al-Ṭālibī, Official Printing Press, Tunis, 1968, pp. 16–159.

prescribed measures[1]. It is worth noting that although these three latter units were Zanatian measures, they were nevertheless considered arbitrary measures that were used when the legally prescribed measures were unavailable.

Here, an observation of considerable historical importance emerges: not all measurement units were of the same nature. Alongside the legal standards, which sought to regulate commercial transactions, customary standards continued to exist in certain markets. This reveals a coexistence between the jurisprudential standard and local commercial practice.

The data presented in the figure reveal the diversity of measuring vessels in circulation in the markets of the Zanata, with a clear predominance of the mudd and sāʿ, which accounted for 40% and 35% of total usage, respectively. This disparity reflects the nature of commercial activity. Small measures, particularly the mudd (500 g) and the sāʿ (3 kg), were associated with daily transactions and the circulation of goods in limited quantities. By contrast, the use of larger measures, such as the irdabb (95 kg), the waybah (121 kg), and the wasq (191 kg), remained relatively limited, suggesting that they were primarily associated with agricultural transactions, provisioning, and storage. As for the decline in the use of the qafīz (45 kg) to 0%, this reflects its absence from the usage recorded in the available data, without necessarily implying that it was historically nonexistent. This diversity highlights the importance of the system of measurement by volume in regulating the Zanatian economy. It may also have created opportunities for manipulation of quantities and short-measuring, which made the standardization and monitoring of measures an essential element in ensuring the stability of transactions and protecting the rights of those involved.

Second: Weights

Commercial transactions were not limited to measurement by volume; weight was also used for commodities whose nature required it, particularly gold, silver, and coins. The sources reveal the presence of a number of units of weight, most notably the pound[2], ounce[3], mithqāl[4], dirham[5], kharūba[6], shaʿīra[7], qintār[8], and qurṣṭūn[9].

The ratl occupies a prominent position among these units. However, variations in its value from one region to another clearly reveal the problem of the multiplicity of standards. Its value differed among the Hijaz, Egypt, Baghdad, and Damascus[10]. Jurists also expressed differing opinions regarding its precise value in the Maghreb. The source indicates that certain Zanatian regions had their own specific ratl measures, while also referring to the use of the ratl of Kairouan and

[1] Būbah Majānī, al-Maghrib al-Awsaṭ fī al-ʿAṣr al-Wasīṭ min Khilāl Kutub al-Nawāzil, Dār Bahāʾ al-Dīn, Constantine, 2011, p. 127.

[2] With the letter rāʾ pronounced with either kasra or fatḥa, the ratl was one of the units of weight widely used in the Islamic Maghreb. It was also used during the time of the Prophet, peace and blessings be upon him, as indicated by the hadith of Anas: "The Prophet would wash—or would perform ritual bathing—with a sāʿ up to five amdad, and he would perform ablution with a mudd." Al-Bukhari, Ṣaḥīḥ al-Bukhārī, Book of Ablution, "Chapter on Performing Ablution with a Mudd," Hadith no. 201, p. 62. It was also narrated by Ahmad in al-Musnad, vol. 3, p. 179.

[3] Ibn al-Banna defines it as "that whose weight of silver amounts to forty dirhams according to the dirham al-kayl, while the weight of one dirham al-kayl is fifty and two-fifths barley grains taken from medium-sized barley grains." Ibn al-Banna, Maqāla fī Maqādīr al-Makāyīl al-Sharʿiyya, edited and annotated by Hayat Qara, Dar al-Kutub al-ʿIlmiyya, Beirut, 2009, p. 97.

[4] The mithqāl is considered a unit for weighing gold and precious materials, and its weight is estimated at 4.72 grams. Brunschvig, vol. 2, op. cit., p. 160.

[5] It constituted the basis of the Islamic system of weights, whose origin can be traced back to the Greek drachma. Walter Hinz, op. cit., p. 9. Its use during the time of the Prophet, peace and blessings be upon him, is established by the hadith narrated by ʿAmr ibn Shuʿayb, from his father, from his grandfather, who said: "The value of the blood money during the time of the Messenger of God was eight hundred dinars, or eight thousand dirhams, and the blood money of the People of the Book at that time was half that of the Muslims." Abu Dawud, Sunan Abī Dāwūd, vol. 6, Book of Blood Money, "Chapter: How Much Is the Blood Money?", Hadith no. 4542, p. 601.

[6] The kharūba was among the weights that became widespread in the Maghreb. According to Hinz, it corresponded to the weight of a qirāṭ, equal to 1/24 of a mithqāl, or 4.333 grams. Walter Hinz, op. cit., p. 29.

[7] This refers to a moderate, medium-sized barley grain. Anas narrated from the Prophet, peace and blessings be upon him: "He will be brought out of the Fire who says, 'There is no god but Allah,' and who has in his heart goodness weighing the equivalent of a barley grain." Al-Bukhari, Ṣaḥīḥ al-Bukhārī, Book of Faith, "Chapter on the Increase and Decrease of Faith," Hadith no. 44, p. 21; Muslim, Ṣaḥīḥ Muslim, Book of Faith, "Chapter on the Lowest-Ranking Person among the People of Paradise," Hadith no. 325, p. 66.

[8] Tāj al-ʿArūs states that the qintār is equivalent to 1,200 dinars and corresponds to one hundred ratls. Al-Zabidi, Tāj al-ʿArūs min Jawāhir al-Qāmūs, vol. 13, edited by Mustafa Hijazi and supervised by ʿAbd al-Sattar Ahmad Farraj, Kuwait Government Press, p. 485.

[9] Al-Wansharisi, al-Miʿyār, vol. 1, previous source, pp. 397–398.

[10] Al-Muqaddasi, Aḥsan al-Taqāsīm fī Maʿrifat al-Aqālīm, De Goeje edition, Leiden, 1906, p. 240.

Tahert.[1]
The ounce, mithqal, and dirham were also used in various transactions, particularly those involving money and valuable commodities. Variations in the weights of these units from one region to another reveal the partially non-standardized nature of the system of weights, making knowledge of the local standard essential for ensuring the validity and fairness of transactions.
As for the quintar, it had several types depending on the commodities being weighed. The source provides examples of its use for oil, pepper, and other goods, indicating that certain weights were associated with the nature of the commodity itself.[2] The qirastun (qarastun) also appears among the weighing instruments used in the Maghreb, with evidence of its use in certain monetary transactions. The Zanata employed it, as Ibn al-Sarraj was asked: "Some jurists of the time issue a legal opinion prohibiting the exchange of one large dirham for two small dirhams, or one small dirham for two qirats; and they issue a legal opinion prohibiting the return of a small dirham in exchange for a large dirham, or one qirat for a small dirham, using the scale known as the qirastun." He replied: "They are permissible, and prohibiting them is an act of exaggeration and excessive strictness. God Almighty has said: 'Do not commit excess in your religion.'"[3] The Prophet Muhammad (peace be upon him) also said: "The extremists are ruined."[4]
Taken together, these data indicate that the system of weights, like the system of measures, was not completely standardized. Rather, it varied according to the region, the commodity, and local custom. This explains the continuing need to monitor and verify the accuracy of standard measuring and weighing instruments.

Section Three: Fraud and Under-Measurement in the Zanata Markets

The multiplicity of standards and variations in their quantities constituted one of the contexts that could be exploited by certain merchants to engage in fraud and under-measurement. The sources confirm that the markets of Zanata, like other markets in the Islamic Maghreb, witnessed various forms of manipulation of measuring vessels and weighing scales. Consequently, monitoring these instruments became an essential part of the functions of the authorities and the muhtasib (market inspector responsible for hisba).
Fraudulent practices involving measuring vessels took various forms, including wiping or leveling the measure in a manner that affected its capacity, adding oil to it, placing pebbles at its bottom, and adding lead to the weighing pan.[5] These practices demonstrate that fraud went beyond merely violating an established standard and developed into sophisticated technical tricks intended to increase or decrease the measured quantity without the buyer noticing.
Manipulation also extended to scales and weights. The sources mention blowing on one side of the balance, placing a piece of wax underneath one of the pans, as well as employing concealed methods to influence the weight of the commodity.[6]
This phenomenon cannot be explained by a single factor. Differences in standards, the limited knowledge of some traders and consumers regarding the precise quantities, and variations in the level of market supervision all contributed to creating favorable conditions for fraudulent practices. The nawāzil (juridical cases) dealing with the quantities of the ṣāʿ and mudd and with the manner of paying zakat reveal the persistence of difficulties related to standardizing these units and determining their exact quantities.
However, the evidence presented in the material does not justify the generalized claim that all inhabitants of Zanata were unfamiliar with the legally prescribed measures. Historically, it is more accurate to understand these juridical cases as evidence of differences in people's knowledge of the prescribed quantities and variations in their application. Such discrepancies could have been exploited by certain merchants as a means of deception and fraudulent dealing.

Section Four: Hisbah and Mechanisms for Regulating Commercial Transactions

The regulation of measures and weights was not merely an economic matter; rather, it was closely connected to the religious conception of justice in commercial transactions. Consequently, the issues of measuring and weighing received considerable attention in jurisprudential texts, and these principles were subsequently extended to the regulation and supervision of markets.
The muhtasib (market inspector) played a fundamental role in supervising measuring instruments, ensuring the accuracy and integrity of measures, weights, and scale weights (sunj), and preventing their manipulation. The books on hisbah provide detailed descriptions of the specifications of a correct measure, while also establishing conditions concerning the

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[1] Al-Bakri, al-Maghrib, previous source, p. 62.
[2] Ibn Battuta, Tuḥfat al-Nuẓẓār fī Gharāʾib al-Amṣār wa-ʿAjāʾib al-Asfār, commonly known as The Rihla, Vol. 4, Dār Ṣādir, Beirut, p. 351.
[3] The Holy Qur'an, Sūrat al-Māʾidah, verse 77.
[4] Al-Wansharisi, Al-Miʿyār, Vol. 1, previously cited source, pp. 397–398.
[5] Muhammad Fattaha, Al-Nawāzil al-Fiqhiyya wa-l-Mujtamaʿ: Abḥāth fī Tārīkh al-Gharb al-Islāmī (min al-Qarn al-Sādis al-Hijrī ilā al-Qarn al-Tāsiʿ / 12th–15th Centuries), Publications of the Faculty of Arts, Casablanca, 1999, p. 76.
[6] Daily Life in the Islamic City: The Emergence and Development of the Hisba System in the Maghreb, Dar Houma, Algeria, 2022, p. 75.

manufacture and durability of weighing instruments, thereby preventing deliberate over-measurement or under-measurement.[1]
The importance of supervision is also evident in the use of newly introduced measures. Yahya ibn Umar emphasized the necessity of standardizing measurement standards in markets and rejected situations in which a measure would be large for one seller and small for another. He stressed the responsibility of the governor to protect people with regard to their property and transactions. He also advocated punishing anyone who altered weights or measures and expelling such individuals from the market.[2]
Through the questions posed to jurists, we can discern the extent to which fraudulent practices involving measures had become widespread in the central Maghreb in general and in Zenatian markets in particular. Some jurists were asked whether the judge was required to inspect people's livelihood and the conduct of sellers in their markets, examine measures, weights, and awqiya used in their transactions, and discipline anyone whose dishonesty, shortchanging in sales, or deficiency in what they sold to people became apparent.[3] Ibn al-Habib stated: “The ruler must inspect the measure and the scale at all times and compel people to fulfill [the proper measure and weight]. This is what Malik used to say and command, and he instructed the market officials in Medina to do likewise.”[4]
The task of the muhtasib was not limited to visual inspection; it also required detailed knowledge of the tricks and techniques that fraudsters might employ. Thus, the books on hisbah describe methods used to conceal manipulation involving barley grains or weighing instruments, indicating that supervision required a considerable degree of expertise, initiative, and surprise inspections.[5]
Nevertheless, strict supervision did not completely eliminate fraud. The source indicates the continued use of certain fraudulent techniques, including the use of lead sheets covered with grease and oil and concealed in the pan of the scale, thereby reducing the weight of the commodity without the buyer noticing.
Hisbah in the Zenatian context assumes particular importance given the appearance of names of Zenati individuals who performed this function. Among them was Abu Yazid Makhlad ibn Kaydad al-Yafrini, whom the source reports Ibn al-Athir described as exercising hisbah over people with regard to their conduct and doctrines, as well as overseeing the collection of taxes and funds.[6] The source also points to groups from Zanata in Nafusa who undertook the task of enjoining what is right and forbidding what is wrong in the markets.[7]
Accordingly, hisbah was not merely a punitive institution; rather, it constituted a mechanism for regulating the market and safeguarding trust in commercial transactions through the inspection of measuring and weighing instruments, monitoring merchants’ conduct, intervening when fraud was detected, and imposing appropriate penalties.

Conclusion

The study of measures and weights in Zenata trade in the Central Maghreb during the medieval period reveals an important aspect of the nature of economic activity and the mechanisms governing markets within Zenata society. The available evidence demonstrates that the Zenata people were familiar with a diverse system of standards that combined measures and weights based on Islamic legal references with units commonly used throughout the Maghreb, in addition to local units associated with certain areas and Zenata tribal groups.
It is also evident that the plurality of standards was closely connected to the nature of the Zenata territory. Its vast geographical extent, the multiplicity of settlement centers, the diversity of markets, and the overlapping commercial relations between different areas all contributed to the persistence of variations in quantities and the diversity of customary practices. Local Zenata measures, such as al-Habsa, al-Kamsha, and Amsatrān, provide examples of the persistence of customary standards alongside legally recognized standards.
Conversely, differences in standards provided some merchants with opportunities to engage in fraudulent practices and short-measuring or short-weighing, whether through the manipulation of measures or weights. They employed various methods, some relatively simple and others based on sophisticated techniques that were difficult to detect. Jurisprudential texts and works on hisba reveal a clear awareness of the dangers posed by such practices, as well as continuous efforts to strengthen market supervision and regulate instruments of measurement.
It is also clear that hisba constituted the principal mechanism for regulating commercial transactions. The muhtasib and local authorities were responsible for supervising measures and weights, verifying their conformity with established standards, and punishing those found to have manipulated them. Nevertheless, the persistence of fraudulent practices

[1] Al-Shizari, Nihayat al-Rutba fi Talab al-Hisbah, ed. Ahmad Farid al-Muraydi and Muhammad Hasan Isma'il, Dar al-Kutub al-'Ilmiyyah, Beirut, 2003, p. 15.
[2] Yahya ibn Umar, Ahkam al-Suq, ed. Isma'il Khalidi, Dar Ibn Hazm, Beirut, 2011, p. 32.
[3] Ibid., p. 32.
[4] Al-Majlidi, Al-Taysir fi Ahkam al-Tas'ir, introduction and ed. Musa Laqbal, National Company for Publishing and Distribution, Algeria, 1981, p. 59.
[5] Al-Majlidi, op. cit., p. 57.
[6] Al-Wansharisi, Al-Mi'yar, vol. 1, op. cit., p. 383.
[7] Ibn al-Athir, Al-Kamil, vol. 6, Dar al-Kitab al-'Arabi, 2nd ed., p. 303; Ibn 'Idhari, Al-Bayan al-Mughrib fi Akhbar al-Andalus wa al-Maghrib, ed. and revised by Évariste Lévi-Provençal and G. S. Colin, vol. 1, Dar al-Thaqafah, Beirut, p. 216.

despite these measures demonstrates that supervision faced difficulties arising from the plurality of standards, the vastness of the territory, and the diversity of markets.
Accordingly, measures and weights were not merely technical instruments used in Zenata trade; rather, they formed part of an integrated economic, social, and legal system. This system reflected the nature of the market, the interaction between religiously sanctioned standards and customary practices, and the limits of governmental intervention in regulating commercial exchanges. Therefore, studying these units provides a deeper understanding of the mechanisms underlying the local economy of the Central Maghreb during the medieval period, as well as the relationship between standards, authority, and trust in commercial transactions.

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