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Analysis of cash usage, preferences and perceptions on Euro banknotes of the Maltese public

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BANK ĊENTRALI TA' MALTA
EUROSISTEMA
CENTRAL BANK OF MALTA

Analysis of Cash Usage, Preferences and Perceptions on Euro Banknotes of the Maltese public

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[†] The views expressed in this report are those of the authors and do not necessarily reflect the views of the Central Bank of Malta. Any remaining errors are the sole responsibility of the authors.

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Abstract

The Central Bank of Malta conducted a survey with the purpose of examining cash usage and preferred payment methods in Malta. Furthermore, the study investigated the perceptions of the Maltese public on Euro banknotes and coins. The results gathered from this survey have been analysed and are presented in this report.

The Central Bank of Malta and other relevant stakeholders could benefit from this study by utilising the findings derived from this research for policy making purposes and to safeguard the integrity of the euro as a means of payment.

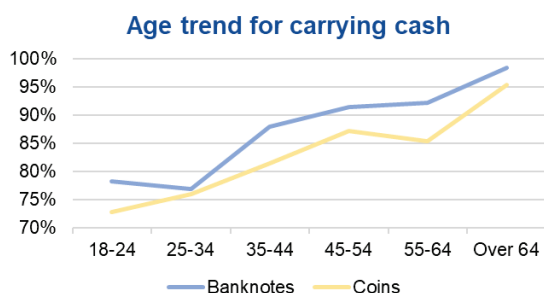
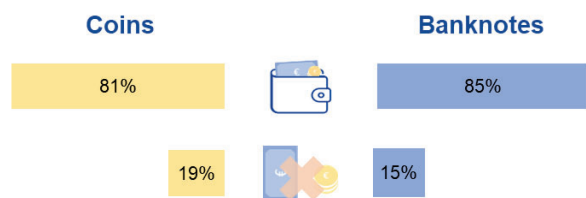
JEL Classification: E41, E42 and E58

Keywords: Cash, Digital payment methods, Security features

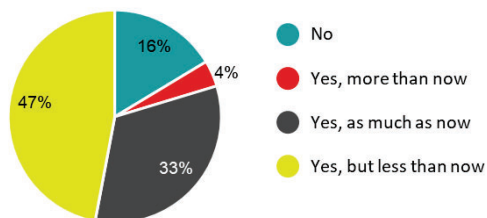
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Analysis of the Cash Usage, Preferences and Perceptions on the Euro Banknotes of the Maltese public

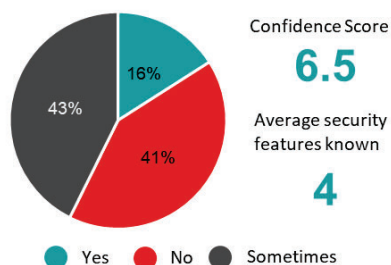


Expected cash usability in the next 5 years



76% Believe that it is important for shops in Malta to continue accepting cash in the future.

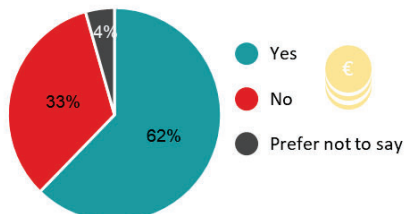
Banknotes authenticity checks



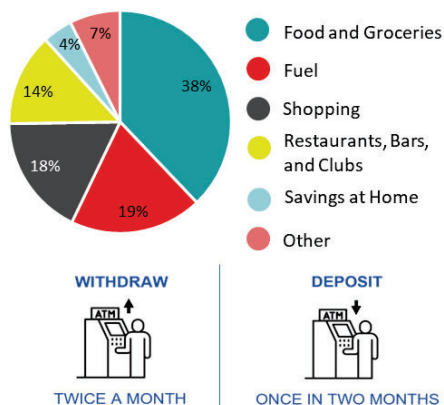
Top 3 security features

1. Portrait Watermark
2. Paper Material
3. Security Thread

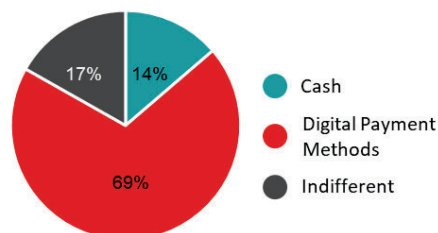
Rounding of the 1- and 2- euro cent coins



Reasons for withdrawing cash



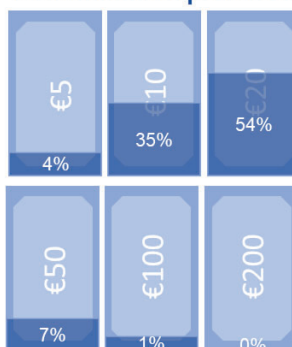
Preferred payment method



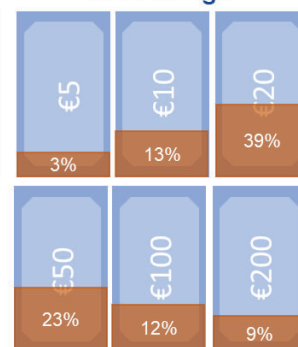
Top 3 preference reasons

1. Control on Expenditure
2. No Fees
3. Convenience
1. Convenience
2. Time
3. Safety and Security

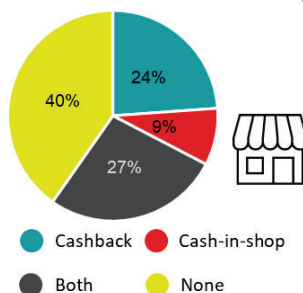
Denomination preferred



Best design



Cashback vs Cash-in-shop



Executive Summary

The purpose of this study is that of gathering information on how cash is used in Malta and to investigate the views and attitudes towards the Euro currency of individuals residing in Malta who are over the age of 18. A total of 708 respondents provided their opinions by completing the survey.

According to the findings from the survey, most participants still carry banknotes and coins, and the amount they carry varies by age. However, digital payment methods are the preferred choice among the participants. This result could explain why amounts of cash deposits and withdrawals are significantly low among participants and why most of them do not keep cash at home. It was indicated that cash will still be used in the near future, although its usage is expected to decline.

The average knowledge of level 1 security features among participants is 6.5 out of 10, indicating that they find it easy to recognise whether a banknote is genuine. However, more than half indicated that they check the authenticity of their banknotes at various instances. On average, most respondents can mention four different security features, with the portrait watermark being the most commonly cited.

Furthermore, the €20 banknote was ranked as the most preferred for daily use and the most attractive in terms of design by the respondents. The majority of respondents agree that prices should be rounded to discontinue the use of 1- and 2-euro cent coins. Moreover, a large percentage of participants expressed interest in using the cashback and cash-in-shop services that may be implemented in retail shops in Malta. Ultimately, a significant portion of the sample believes that it is important for cash to continue being an accepted payment method.

The survey was conducted by the Currency Operations Office within the Banking Operations division of the Central Bank of Malta.

List of Abbreviations

ECB	European Central Bank
NSO	National Statistics Office
CDM	Cash Dispensing Machines

1. Introduction

The primary objective of this report is to gain insights into cash usage in Malta and to understand the preferences and opinions of the public regarding euro banknotes and coins. A study conducted by the European Central Bank (ECB)¹ on consumer payment attitudes revealed that Malta has the highest proportion of cash usage, both in terms of the number of transactions and the total value per transaction. However, there has been a noticeable decline in recent years, indicating a shift towards digital payment methods. Consequently, the Central Bank of Malta deemed it necessary to conduct a more in-depth investigation into the payment attitudes of Maltese citizens.

Additionally, this report delves into the public security features present on euro banknotes to gain a better understanding of which security feature is most widely recognized and whether the public verifies the authenticity of banknotes. Furthermore, it explores the possibility of discontinuing the 1- and 2-euro cent coins and implementing an acceptable rounding method as an alternative.

This report comprises four sections. Section 2 goes into the methodology employed in this report to achieve the mentioned objectives. Subsequently, section 3 presents the findings and results from the conducted survey. The study ends with section 4, the conclusion, where the main findings are presented together with the way forward.

¹ European Central Bank (2022) Study on the payment attitudes of consumers in the Euro Area (space). Retrieved from https://www.ecb.europa.eu/stats/ecb_surveys/space/html/ecb.spacereport202212~783ffdf46e.en.html

2. Methodology

The Currency Operations Office of the Central Bank of Malta directed the survey, which was carried out in August 2023. As a method for data collection, an open-access survey through Microsoft Forms was used to obtain the responses. The strategies used to collect data were calling randomly individuals, sharing the survey across social media platforms and on the website of the Central Bank of Malta, and distributing the link via email. Each participant's attributes, including age, locality, and gender, were included in the data gathered.

The target population of this survey were individuals residing in Malta aged 18 or over. The population (over 18 years of age) in Malta amounted to 438,770 as per the National Statistics Office (NSO)². With a margin of error of 5%, the sample size required to have a statistically significant result at a 95% confidence level needed to be 364 respondents. However, the responses collected exceeded this target sample and amounted to 708 respondents. This sample size means that our margin of error is 3.68%. Moreover, to ensure that results are statistically significant by gender, age group and district, the sample was weighted based on each category.

The survey included 22 questions and was divided into two separate categories. The first category comprised general questions about respondents' age, location, and gender. It facilitated the process of summarising the data and eased the presentation of findings in the report. The second category investigated the citizens' use of cash, including frequency of withdrawals and deposits, the average amount held in wallets, and other data of each respondent concerning preferences such as payment method, denomination, and design. Furthermore, the awareness of the level 1 security features was analysed, together with views on cash services, cash acceptance and 1- 2- euro cent coins usefulness.

² National Statistics Office (2023) Vol 1, Census of Population and Housing 2021: Final Report: Population, migration and other social characteristics. rep. Valletta: National Statistics Office.

Characteristics of the Respondents

Chart 1 below depicts the gender of the respondents, where the majority were women. In addition, the locations were categorised into six districts as defined by the NSO³. The number of responses by district is presented in the chart.

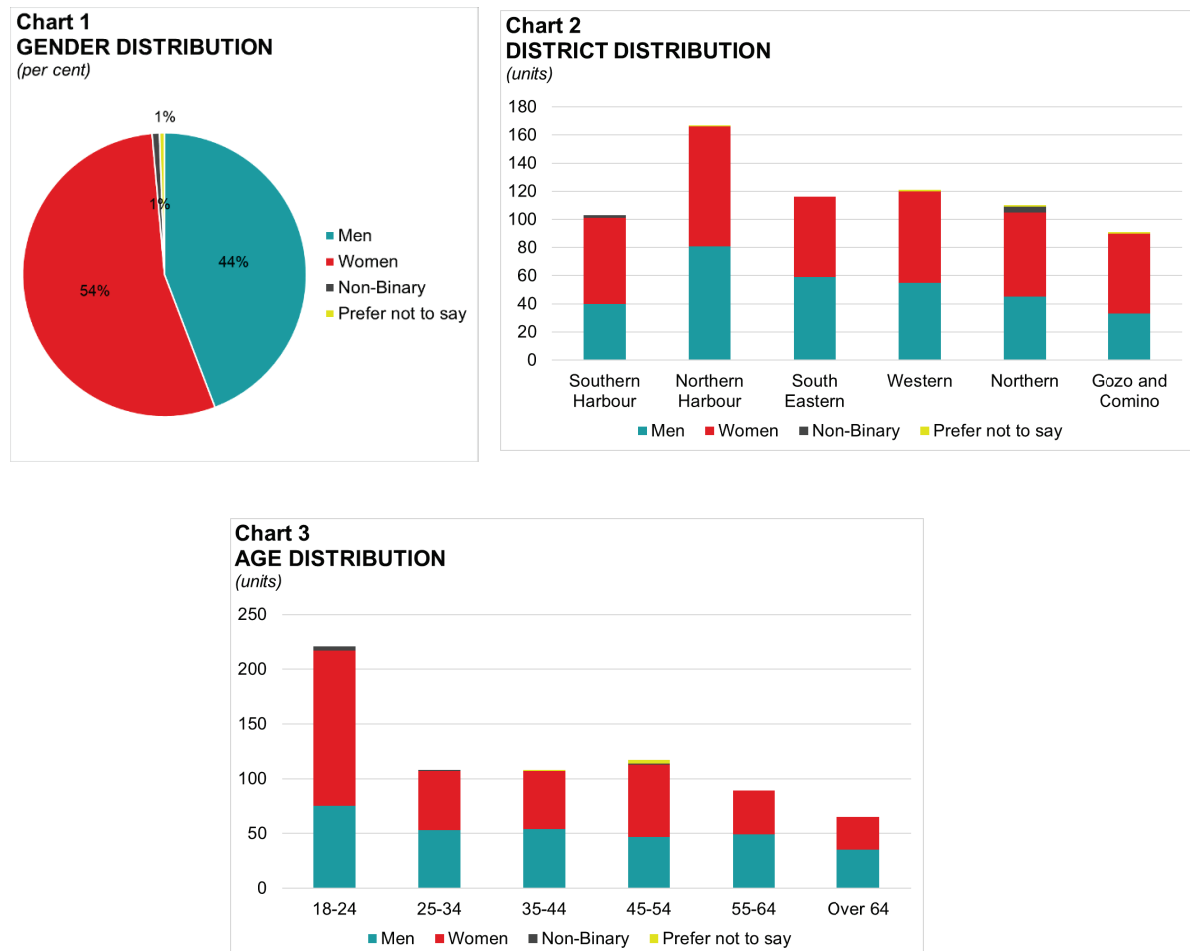


Chart 3 above presents the age distribution of the eligible respondents who participated. The majority of respondents were between the age range of 18-24. The results for the gender distribution of the 18-24 age group respondents should be interpreted with caution as the number of responses for females and that of males differs from the population distribution, which could lead to a bias in this result. The smallest category was the age group of over 64. This could be due to the lack of trust to provide information over the phone and the lack of social media presence to access the survey shared online.

³ National Statistics Office (2014) Districts (Local Administrative Unit). Retrieved from [https://metadata.nso.gov.mt/classificationdetails.aspx?id=Districts%20\(Local%20Administrative%20Unit\)](https://metadata.nso.gov.mt/classificationdetails.aspx?id=Districts%20(Local%20Administrative%20Unit))

3. Findings

Banknotes and Coins

The survey results indicate that a significant proportion of participants (85%) carry paper money, whereas 81% of respondents carry coins with them. Thus, as depicted in Chart 4, the survey indicates that the respondents prefer to carry banknotes rather than coins.

De Nederlandsche Bank (DNB) has conducted a similar study focusing on consumers' use, perceptions and requirements of cash in the Netherlands. When compared to the Dutch study Maltese individuals tend to carry more banknotes compared to the Dutch, while both groups carry coins at the same rate⁴ (Marwijk et al., 2023).

Men tend to carry more banknotes than women. Merely 12% of men reported that they do not carry banknotes, in contrast to 17% amongst women. With regards to non-binary respondents, their responses follow the same percentages of women in terms of holding cash. All respondents who did not disclose their gender, carry banknotes with them.

Chart 4
COMPARISON OF CARRYING BANKNOTES VS COINS?
(per cent)

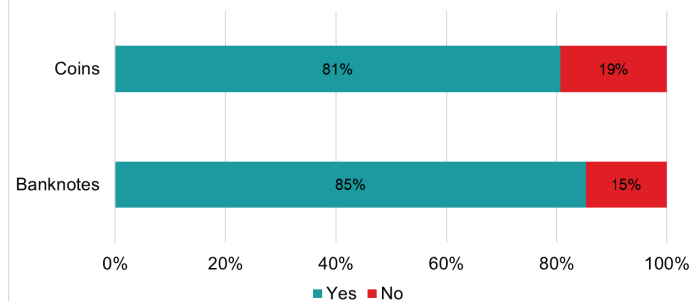


Chart 5
DO YOU CARRY BANKNOTES WITH YOU?
By Gender (per cent)

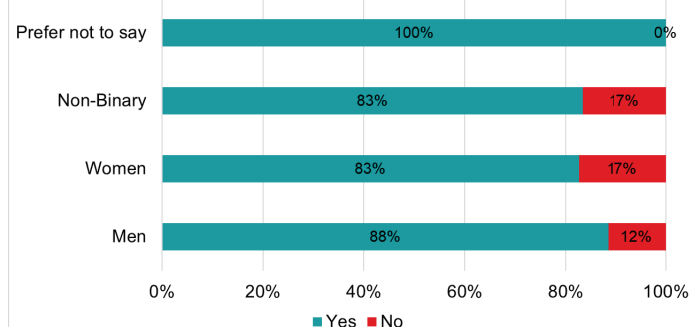
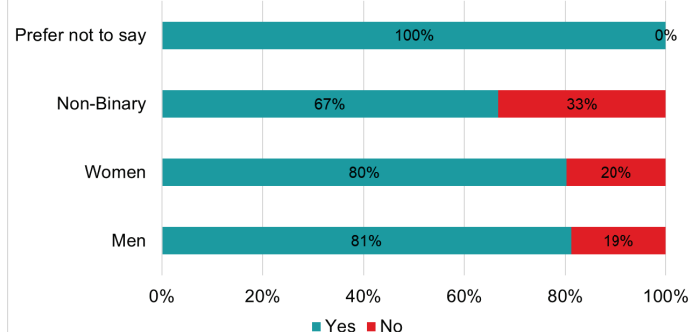


Chart 6
DO YOU CARRY COINS WITH YOU?
By Gender (per cent)

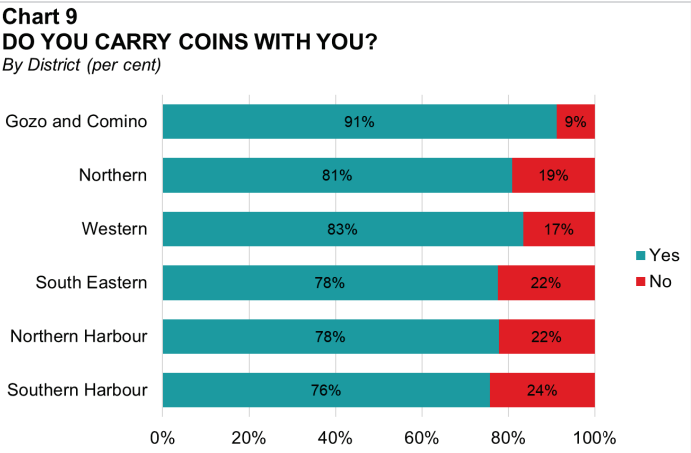
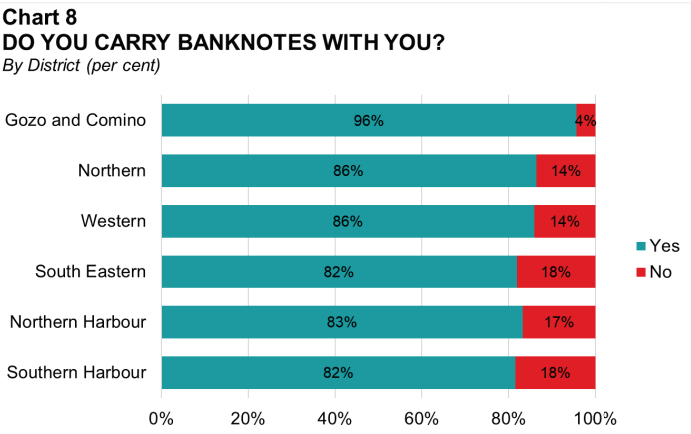
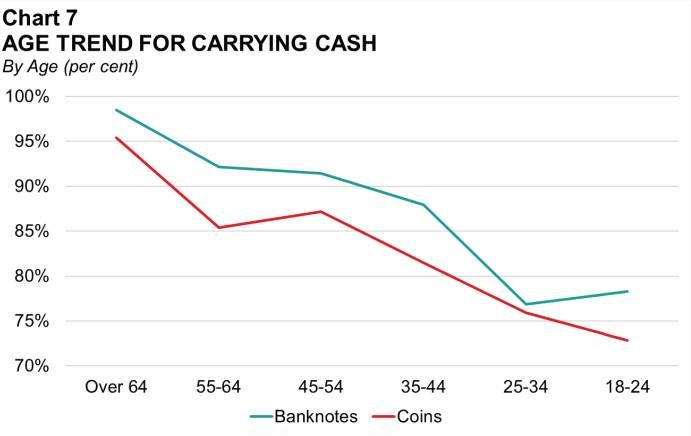


⁴ Marwijk, M. van, Tollenaar, S. and Verhulst, L. (2023) Knowledge and appreciation of euro banknotes in the Netherlands, De Nederlandsche Bank. Available at: <https://www.dnb.nl/media/ad4kftzg/knowledge-and-appreciation-of-euro-banknotes-in-the-netherlands-2023.pdf> (Accessed: 30 August 2023).

When it comes to carrying coins, men were found to carry slightly more coins than women (by 1%) in their wallets. Non-binary respondents carry the least number of coins with them (67%). All respondents who chose not to disclose their gender carry coins with them.

The percentage of people who carry banknotes with them reduces noticeably as age decreases, from 98% among those over 64 to 77% among those aged 25 to 34, according to an analysis of responses by age groups. The decline is even more pronounced when it comes to coins. The percentage of respondents carrying coins declines with age; from 94% of respondents over the age of 64 to 73% of respondents between the ages of 18 and 24. Hence, it was noted that as age increases, the number of individuals carrying cash tends to rise. This tendency could be because the older generation may favour traditional over digital payment methods because they may not be acquainted with or confident in using them. This is presented in Chart 7.

It was observed that the prevalence of respondents carrying banknotes varies based on their geographical location. In Gozo and Comino, the majority of the respondents irrespective of their age carry both banknotes and coins, with 97% carrying banknotes and 91% carrying coins. Conversely, in the Southern Harbour district, only 82% of respondents carry banknotes, and 76% carry coins. This disparity is visually represented in Charts 8 and 9, and a similar pattern is observed for coins.



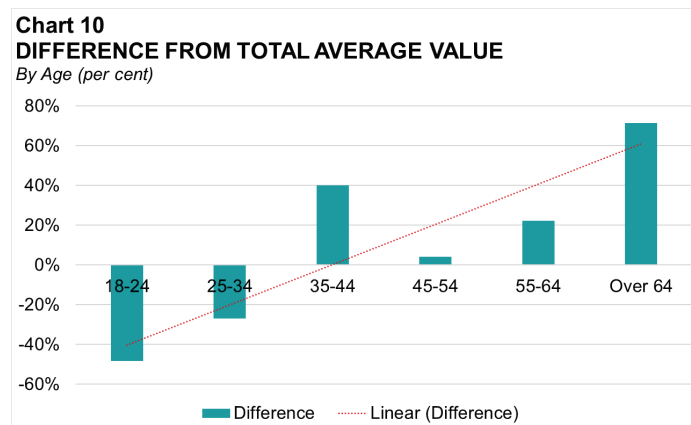
Average Wallet Value

On average, people carry €74 in their wallets. However, the average wallet value for women is 16 percentage points lower than the overall average, while the average for men is 19 percentage points higher. Non-binary individuals have a mean purse balance that is 54 percentage points lower than the overall average, while those who chose not to disclose their gender have an average purse balance that is 55 percentage points higher than the overall average. The highest reported amount was €2,000.

Table 1
AVERAGE WALLET VALUE

Gender		Difference from total average value
Men	▲	+19 pp
Women	▼	-16 pp
Non-Binary	▼	-54 pp
Prefer not to say	▲	+55 pp
Total Average in value (€)		€74

The most conspicuous contrast emerges when contrasting the youngest and oldest generations, a result in line with prior research expectations. Given the established positive correlation between age and the proportion of individuals carrying cash, a similar positive correlation is observed between age and the wallet value of the respondents. As one transitions to older age groups, there is a corresponding increase in value. This trend is graphically depicted in Chart 10 below.



A dissimilarity in the cash value held on average within wallets across districts is apparent. The Northern Harbour, South Eastern, and Gozo and Comino districts lean towards bearing a greater cash amount than the overall average value. In contrast, the average wallet value of the Southern Harbour, Western, and Northern district falls below the total average value. The zenith of wallet average value is found in the South Eastern district, surpassing the overall average by 27 percentage points. Conversely, the Northern district records the nadir of average value, with 20 percentage points lower than the total average value.

Table 2
AVERAGE WALLET VALUE

<i>District</i>	<i>Difference from total average value</i>	
Southern Harbour	▼	-18 pp
Northern Harbour	▲	+6 pp
South Eastern	▲	+27 pp
Western	▼	-17 pp
Northern	▼	-20 pp
Gozo and Comino	▲	+19 pp
<i>Total Average in value (€)</i>		€74

Withdrawals Frequency

Respondents, on average, make a withdrawal twice a month. This pattern holds steady across both men and women. However, there is a small distinction between non-binary individuals and those who opted not to specify their gender. Non-binary individuals withdraw once a month, whereas those who do not specify their gender tend to withdraw three times a month. The frequency was scrutinised across districts, yet no discernible distinctions arose either within the districts themselves or in comparison to the overall average. When assessing the number of withdrawals based on age, only two age groups exhibited deviations from this average. Individuals aged between 18 and 24 withdraw an average of once per month, while those in the 45 to 54-year age range make an average of three withdrawals per month. According to the table 3 below, men and women are equally likely to withdraw from an ATM or over the counter in a Bank each month. The non-binary respondents tended to withdraw cash the least, and the individuals who did not indicate their gender tended to deposit the most in a month.

Table 3**WITHDRAWAL FREQUENCY**

<i>Gender</i>	<i>Average</i>	<i>Age</i>	<i>Average</i>	<i>District</i>	<i>Average</i>
Men	2	18-24	1	Southern Harbour	2
Women	2	25-34	2	Northern Harbour	2
Non-Binary	1	35-44	2	South Eastern	2
Prefer not to say	3	45-54	3	Western	2
		55-64	2	Northern	2
		Over 64	2	Gozo and Comino	2

As of the end of July 2023, a total of 385 Cash Dispensing Machines (CDMs) were in operation across Malta and Gozo. The district boasting the highest concentration of CDMs was the Northern Harbour, which amounted to 177 CDMs. This significant number can be attributed to the Northern Harbour's status as a hub for both tourism and commerce. In stark contrast, the South Eastern district had the fewest CDMs, totalling 25 units. This disparity in CDM distribution can be linked to various factors, including population density and economic activity within each district.

It's important to note that the ratio of CDMs to individuals varies across different districts in Malta and Gozo. On average, there is one CDM in Malta for every 1,145 people, while in Gozo, the ratio is slightly better, with one CDM for every 1,075 individuals. However, these figures are subject to variation depending on the district, as illustrated in the Table 3 below.

Furthermore, this report offers valuable insights into the density of CDMs per square kilometre, which serves as a crucial metric for assessing the accessibility of these machines in different geographical regions. The findings differ for each district, but the densest district with CDMs per square kilometre is the Northern Harbour, while the least are Gozo & Comino and the South Eastern. This means that there are 2 CDMs per square kilometre for the Northern Harbour and 1 CDM per three square kilometres for the latter.

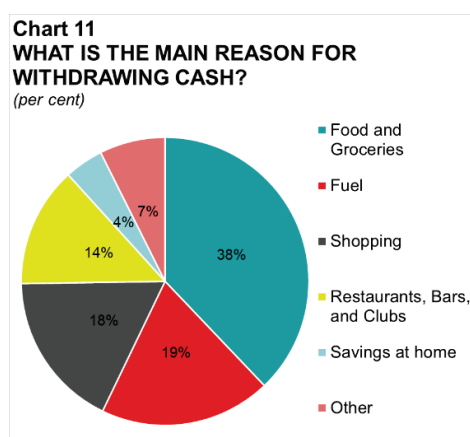
Table 4
CASH DISPENSING MACHINES (CDMs)

<i>District</i>	<i>Number of CDMs</i>	<i>Persons per CDM</i>	<i>CDMs per KM²</i>
Southern Harbour	50	1,458	1.15
Northern Harbour	177	765	2.16
South Eastern	25	2,578	0.44
Western	32	1,704	2.48
Northern	70	1,117	0.92
Malta	354	1,145	1.42
Gozo and Comino	31	1,075	0.46
Total	385	1,140	1.22

**Only population aged over 18 were considered in the computation of this table*

Reasons for Withdrawing

The most prevalent motivations for cash withdrawals were related to food and groceries (38%), while the least favoured rationale was to maintain cash as savings at home, with only 4% of respondents selecting this alternative. Moreover, the main reason for withdrawing does not differ by gender.



Deposits Frequency

When examining the frequency of monthly cash deposits based on gender, a noticeable trend emerges. It becomes evident that men, non-binary individuals, and those who prefer not to disclose their gender tend to make cash deposits more regularly. Specifically, they exhibit a

tendency to deposit cash at least once a month, in contrast to women, whose average monthly deposit rate stands at zero. In terms of the frequency of monthly deposits, it's worth noting that only the Northern, Gozo and Comino districts recorded a rate of once a month. In contrast, respondents from the other districts reported an average monthly deposit rate of zero. Consequently, these two districts are the sole among the six that demonstrate a propensity for making monthly cash deposits. Within the various age groups, it's noteworthy that only the 18-24, 35-44, and 45-54 age brackets disclosed that they engage in cash deposits, albeit on an infrequent basis, typically only once a month. This tendency can be attributed to the fact that many respondents in these age groups mentioned that their salaries and pensions are routinely directly deposited into their bank accounts each month. This automated process eliminates the necessity for them to make frequent cash deposits.

Table 5
DEPOSITS FREQUENCY

<i>Gender</i>	<i>Average</i>	<i>Age</i>	<i>Average</i>	<i>District</i>	<i>Average</i>
Men	1	18-24	1	Southern Harbour	0
Women	0	25-34	0	Northern Harbour	0
Non-Binary	1	35-44	1	South Eastern	0
Prefer not to say	1	45-54	1	Western	0
		55-64	0	Northern	1
		Over 64	0	Gozo and Comino	1

As of the end of July 2023, there were a total of 129 Deposit Machines in operation throughout Malta and Gozo. The district with the highest concentration of these machines was also the Northern Harbour, which amounted to 49 units. This result is connected to the fact that some automated teller machines offer both withdrawal and deposit functions. In contrast, the Gozo and Comino district had the lowest number of deposit machines, amounting to just 10 units. When viewing these figures with the local population, on average, one deposit machine in Malta serves approximately 3,143 individuals, while in Gozo and Comino, the ratio is more favourable, with one deposit machine for every 2,700 persons. However, it's important to emphasize that these averages vary across districts, as explained in the table below.

Furthermore, this report provides valuable insights into the density of deposit machines per square kilometre and the data is presented in Table 4. This data serves as a critical metric for assessing the accessibility of these machines in different geographical regions. The findings differ for each district, but the Northern Harbour emerges as the district with the highest density of deposit machines per square kilometre, while Gozo & Comino has the lowest. Specifically, there are 2 deposit machines per square kilometre in the Northern Harbour and only 1 deposit machine per 7 square kilometres in the latter district.

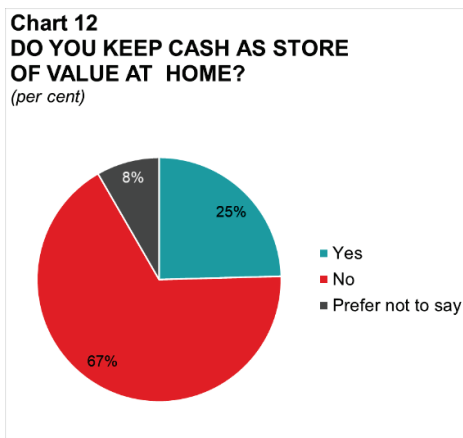
Table 6
DEPOSIT MACHINES

<i>District</i>	<i>Number of Deposit Machines</i>	<i>Persons per Deposit Machine</i>	<i>Deposit Machine per KM²</i>
Southern Harbour	27	2,700	1.03
Northern Harbour	49	2,763	2.03
South Eastern	18	3,581	0.33
Western	19	2,871	0.26
Northern	16	4,885	0.22
Malta	129	3,143	0.52
Gozo and Comino	10	3,334	0.15
Total	139	3,157	0.44

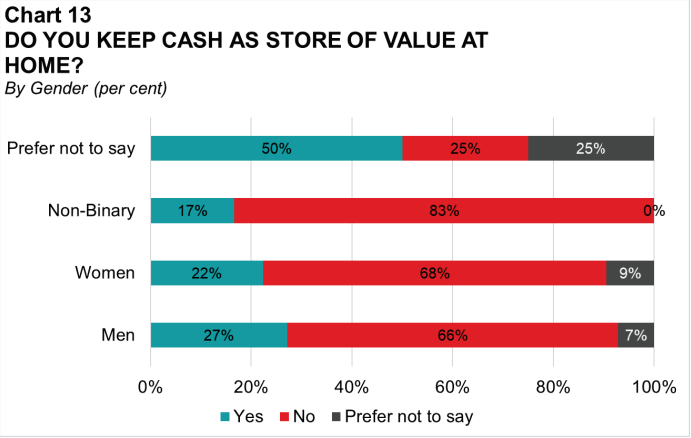
**Only population aged over 18 were considered in the computation of this table*

Store of value

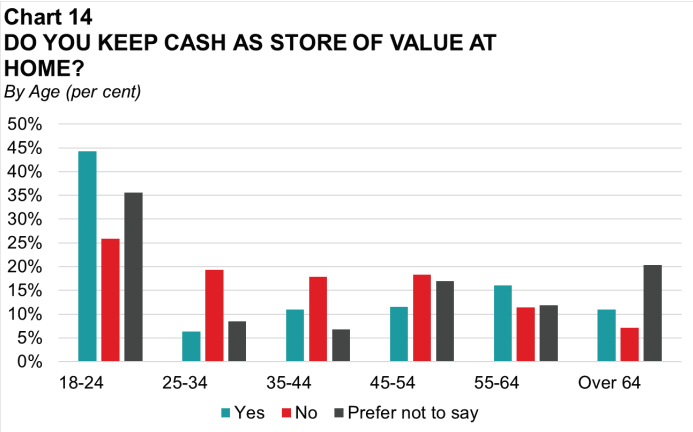
Overall, the study shows that 67% of respondents do not keep cash as a store of value at home, while only 25% do so, and the rest (8%) prefer not to say whether they do so or not.



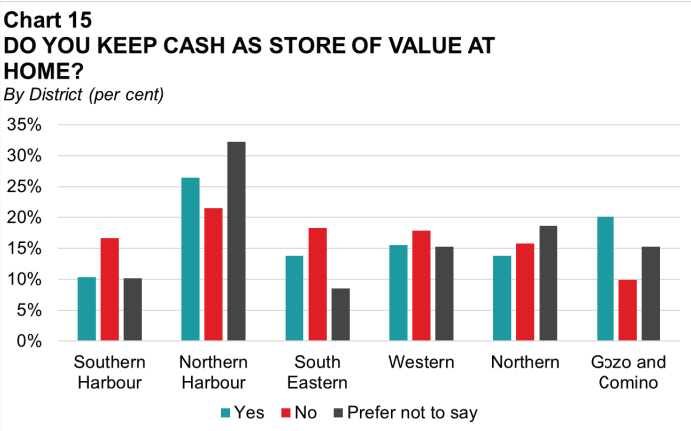
It was revealed that men tend to keep cash at home more than women and non-binary do. This is depicted in Chart 13 which indicates that men prefer cash more than women.



According to the analysis conducted across different age groups, a significant portion of people do not keep cash as a store of value at home. The highest percentage of respondents who do not store cash at home are people aged 25-34. However, when compared to other age groups, respondents in the 18-24 age bracket mentioned that they tend to store value at home the most.



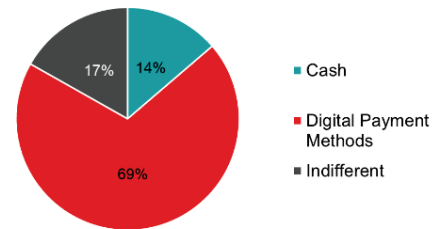
When considering all six districts, it is notable that the Southern Harbour district (77%) is the least likely to keep cash at home. In contrast, the district most inclined to keep cash at home is the Gozo and Comino district (38%).



Cash vs Digital Payments

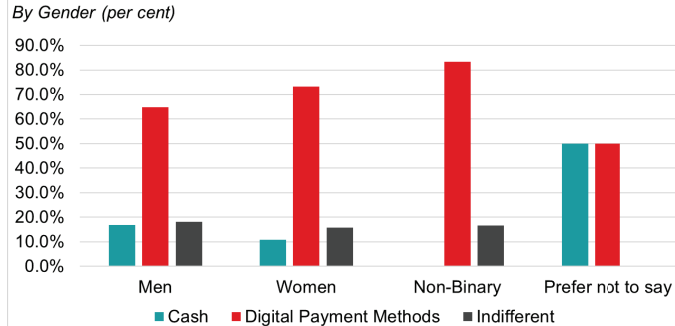
Regarding the choice of payment methods, most respondents, accounting for 69% of the total, prefer to use digital payment methods instead of cash. Only 14% of the respondents prefer to use cash, while the remaining 17% do not have any specific preferences regarding the choice of payment method.

Chart 16
DO YOU PREFER TO USE CASH OR DIGITAL PAYMENT METHODS WHEN CARRYING OUT TRANSACTIONS?
(per cent)



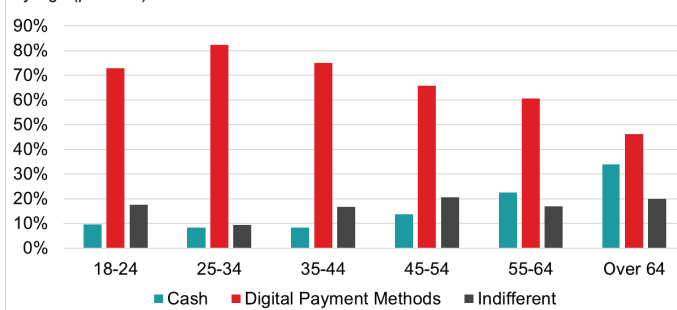
For all gender categories, digital payment methods were more popular than cash, except for the 'prefer not to say' category, where both responses were equally distributed. It was observed that women, with a percentage of 73%, have a higher inclination towards digital payment methods than men, who showed a preference of 65%.

Chart 17
DO YOU PREFER TO USE CASH OR DIGITAL PAYMENT METHODS WHEN CARRYING OUT TRANSACTIONS?
By Gender (per cent)

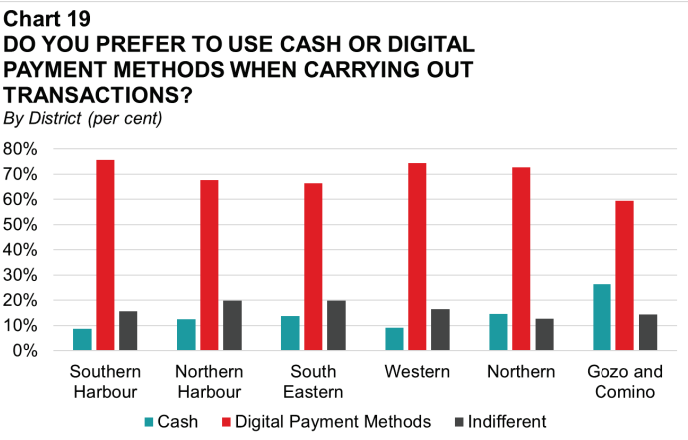


It is observed that people of all age categories tend to prefer digital payment methods over cash. Among all the age groups, the 25-34 age group showed the highest preference for digital payments, whereas the Over-64 age group showed the least preference for digital payment methods. As expected, the Over-64 age group had the highest percentage of respondents who preferred cash, while the 25-34 and 35-44 age groups showed the least preference for cash compared to other age groups. The 45-54 age group had the highest percentage of respondents who were indifferent towards either preference.

Chart 18
DO YOU PREFER TO USE CASH OR DIGITAL PAYMENT METHODS WHEN CARRYING OUT TRANSACTIONS?
By Age (per cent)

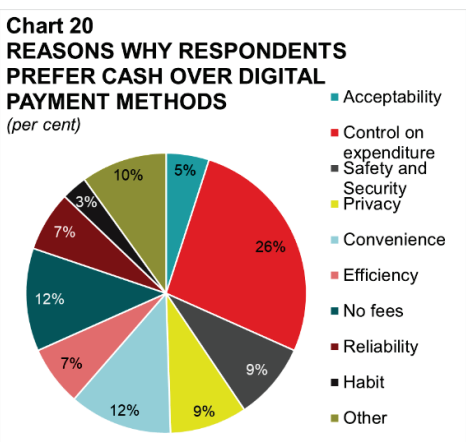


In each district, digital payment methods are favoured over cash, with the Southern Harbour district displaying the highest preference (76%) and Gozo and Comino exhibiting the lowest preference for digital payments (59%). Nevertheless, it's noteworthy that Gozo and Comino boast the highest percentage of respondents who favour cash (34%), while the Southern Harbour and Western districts equally display the least preference (8%) for cash when compared to all other districts. Interestingly, the Northern Harbour district stands out as having the highest percentage of respondents who remain indifferent towards this decision or preference (18%).

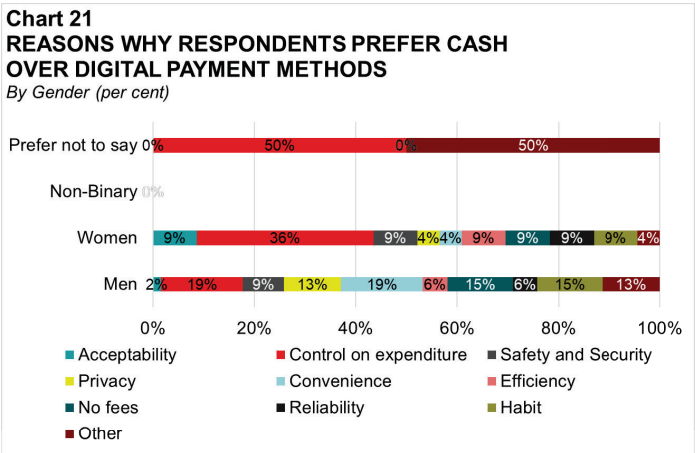


Reasons why respondents prefer cash.

In general, the majority of respondents who prefer to pay with cash (26%), express a preference for utilizing cash over digital payment methods when conducting transactions. This preference is rooted in their belief that cash affords them a greater sense of control over their expenses. Subsequently, cash is used for convenience and because there are no fees involved, both at 12%. Conversely, a mere 3% of participants favour cash due to their perception of its reliability.



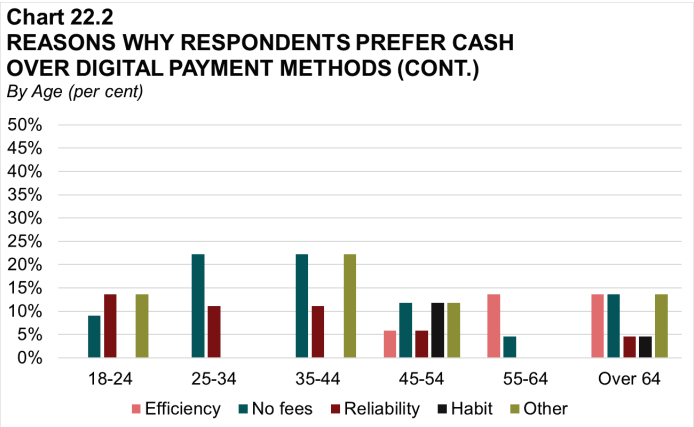
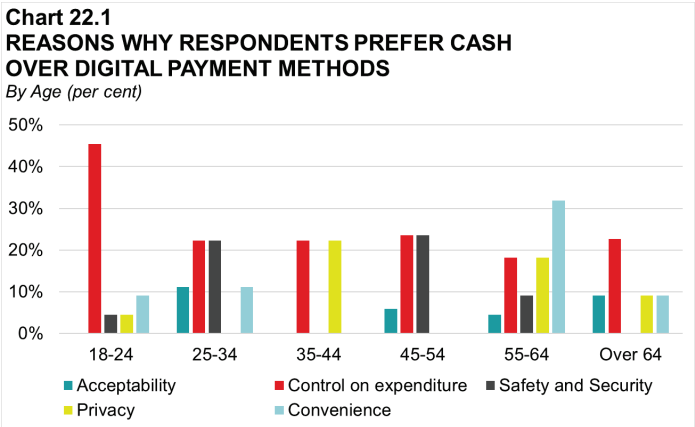
The primary reason for men (19%) and women (36%), respectively, to prefer cash was 'control on expenditure'. Non-binary respondents all chose digital payment methods as the preferred payment method.



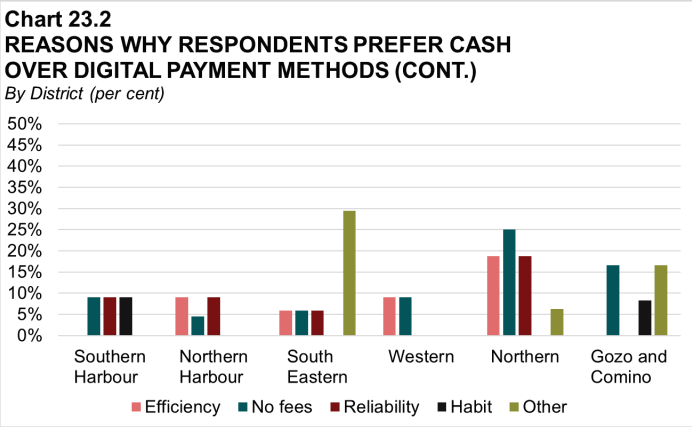
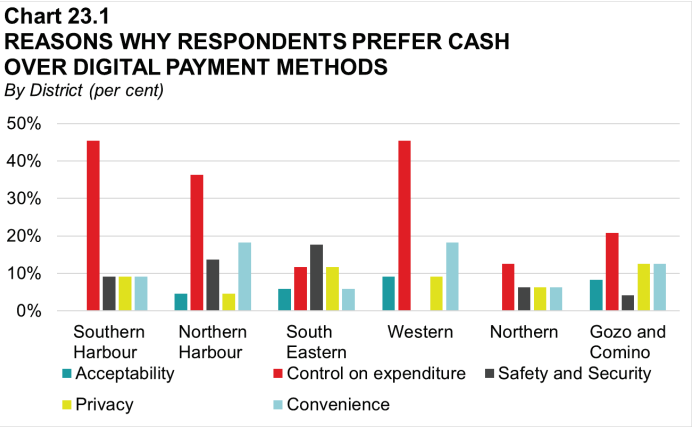
The following are the five most mentioned reasons why participants voted for cash over digital payment methods:

- i. control on expenditure,
- ii. privacy,
- iii. no fees,
- iv. convenience, and
- v. safety and security.

When analysing the reasons based on age groups, individuals between the ages of 18 to 24 and those over 64 predominantly cited control on expenditure as their primary reason. In the age brackets of 25 to 34 and 45 to 54, participants highlighted both expenditure control and considerations for safety and security. Notably, respondents aged 55 to 64 expressed a preference for cash over digital payments, attributing this choice to its perceived convenience.

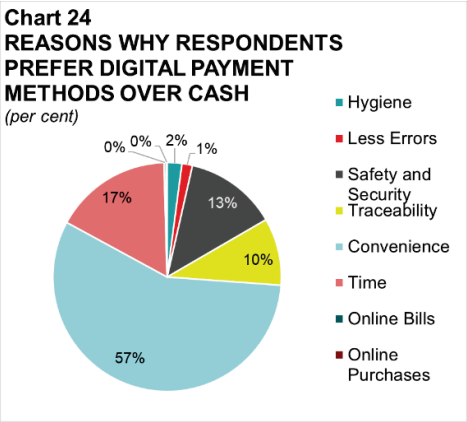


Respondents from the Southern Harbour, Northern Harbour, Western and Gozo and Comino districts all agree that Control on Expenditure is the main reason why they favour cash. However, the South Eastern district mostly voted for Other, and the Northern district preferred the No fees option as the main reason to favour cash.

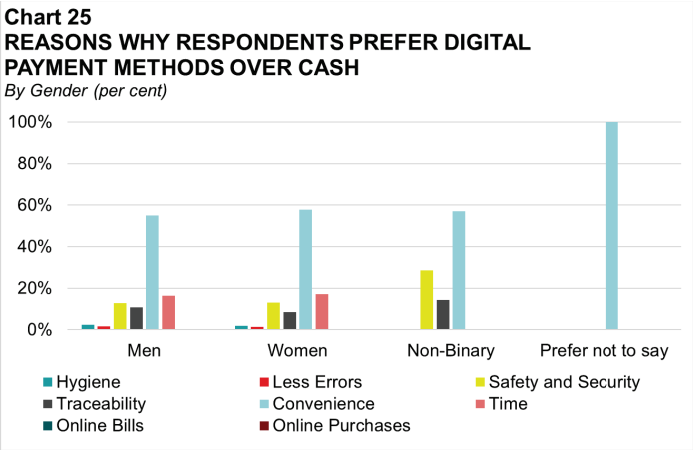


Reasons why respondents prefer digital payment methods.

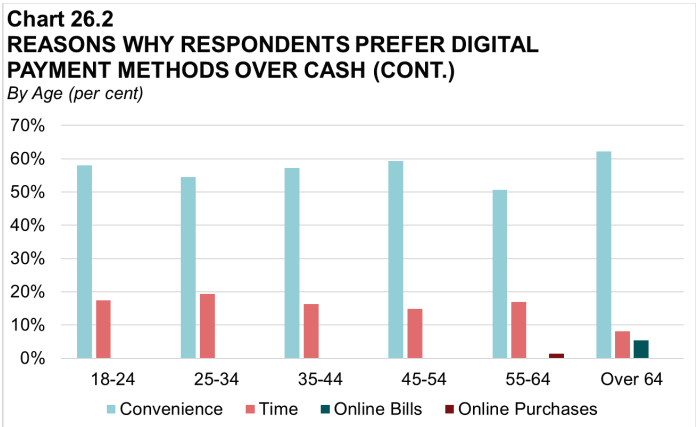
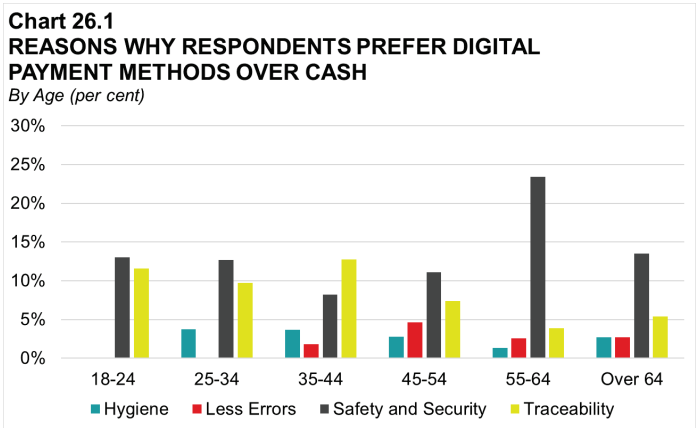
Convenience was the main reason for 57% of all respondents who prefer digital payment methods. The least popular reasons mentioned for using digital payment methods over cash were online bills and online purchases, as shown in chart 24.



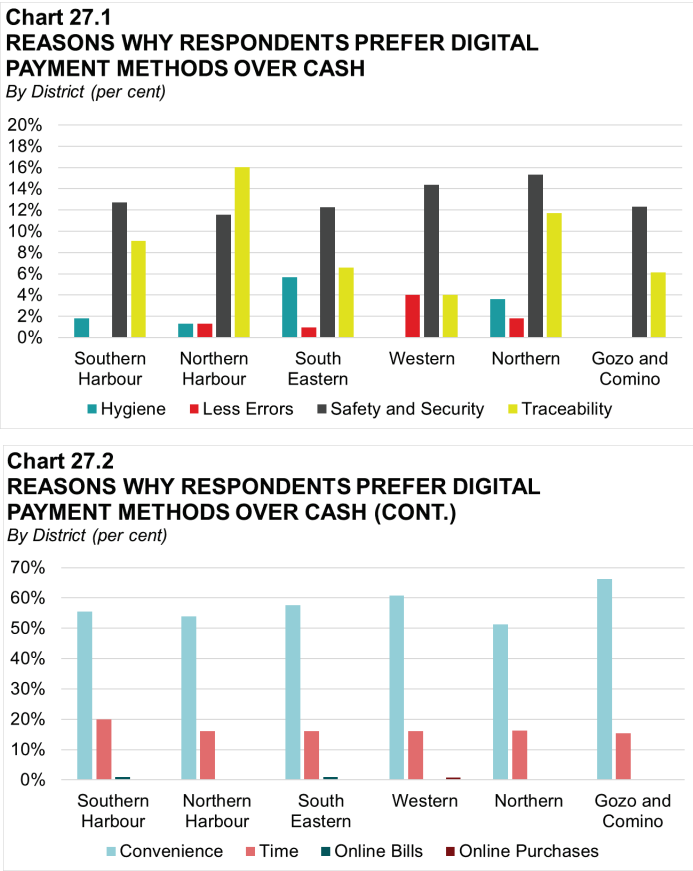
Hygiene, fewer errors, and online purchases were the reasons most popularly chosen by the respondents who were men. On the other hand, safety and security, convenience, traceability, and time were the reasons most mentioned by women. Online bills were equally preferred by both men and women.



Convenience and time were the most preferred category from all the age groups as to why they prefer to use digital payment methods over cash. Online bills and online purchases were the least preferred categories among all age groups.



Similar to the analysis by age group, convenience and time were the most preferred categories among all districts as to why they prefer to use digital payment methods over cash. Online bills and online purchases were the least preferred categories among all districts.

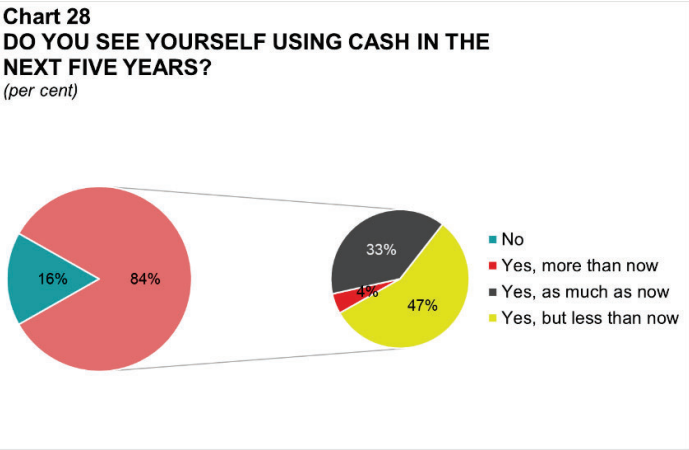


Future of Cash

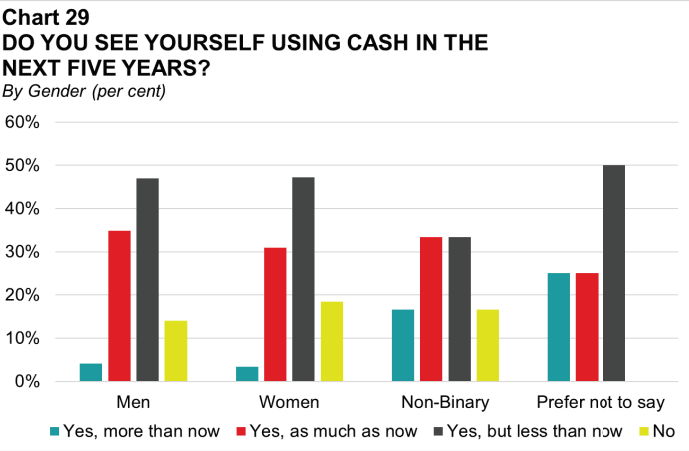
In the next five years, the majority of the respondents, amounting to 84%, have disclosed their intention to continue utilizing cash for transactions, while the remaining 16% will not. Among the 84% who responded affirmatively, 47% plan to use cash less frequently than they currently do, while 33% intend to maintain their current level of cash usage, and a mere 4% anticipate using it more frequently than they do presently. Despite the growing adoption of digital payment methods, the chart below convincingly illustrates that there will still be a sustained demand for cash in the future.

When comparing the results obtained for Malta with those gathered by De Nederlandsche Bank in 2023, it becomes evident that the Maltese population exhibits a higher inclination to continue using cash in the near future when contrasted with the Dutch population. Specifically,

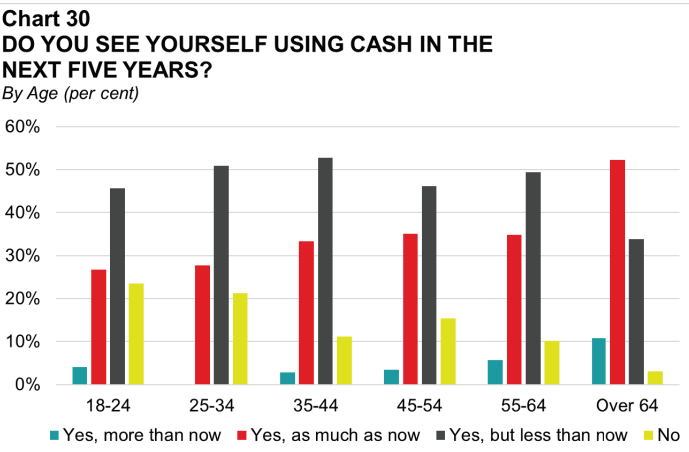
in Malta, 84% of respondents expressed their intent to use cash, whereas in the Netherlands, only 68% shared the same preference. Notably, both the Maltese and Dutch surveys followed a similar pattern, as they both yielded the lowest percentage of preferences for the option of using more cash in the future compared to the present.



The majority of male, female, and respondents who chose not to disclose their gender expressed their intention to continue using cash in the near future, but with less frequency than at present. Non-binary respondents most frequently selected 'Yes, but less than now' and 'Yes, as much as now' as their responses, respectively. Interestingly, 'No' was the least commonly chosen to answer across all gender categories. This underscores the prevailing consensus that cash will continue to be utilized in the future by a significant portion of the population. The enduring relevance of cash is highlighted despite the preference for digital payment methods among many individuals.



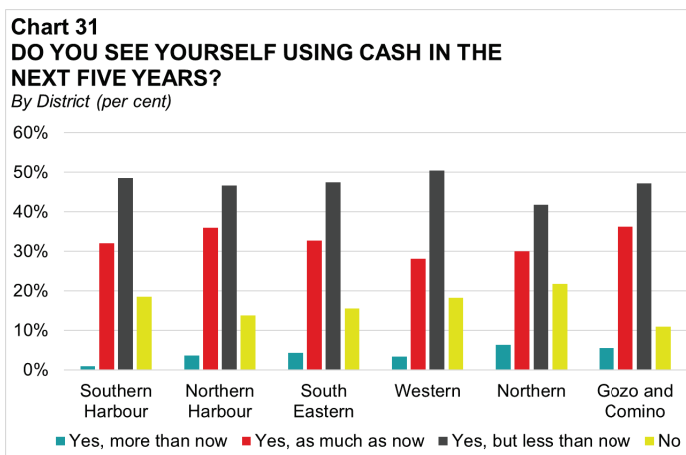
After analysing the data, a significant difference was observed among different age groups, as shown in chart 30. It was noticed that individuals belonging to the 18-24 age group had a higher tendency to choose 'No' as compared to those aged over 64. This observation is consistent with the data presented



in Chart 18, which shows that the younger generation prefers digital payment methods while the older generation prefers cash transactions.

Moreover, it becomes apparent that as age advances, the likelihood of selecting 'No' as an answer diminishes. Conversely, the likelihood of choosing the 'Yes, as much as now' option increases with age. Interestingly, the demographic aged over 64 displayed the greatest preference for the 'Yes, more than now' option, while none from the 25-34 age group opted for this choice.

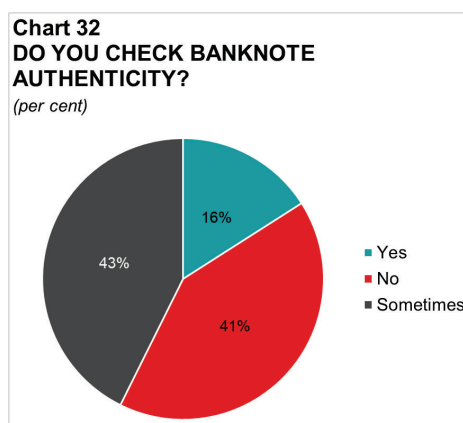
The most preferred response across all districts was 'Yes, but less than now,' while the least selected option for all districts was 'Yes, more than now,' as depicted in chart 31. This trend suggests a likelihood that in the near future, people will show a reduced inclination to employ cash for transactions and a greater



propensity to utilize digital payment methods whenever available or feasible. Notably, the Northern district stands out as the most probable district where individuals may cease using cash altogether in the future. Conversely, the Gozo and Comino district emerges as the least likely to discontinue the use of cash.

Banknote Authenticity

A substantial proportion, specifically 59% of the respondents, affirmed their practice of routinely verifying the authenticity of banknotes, albeit with varying frequencies. Among this group, most respondents (43%) engage in this practice less frequently compared to others. Nonetheless, a significant portion, constituting 41% of the respondents, openly acknowledge that they do not undertake the verification of the genuineness of their banknotes. This disparity in behaviour could be attributed to factors such as a lack of knowledge, motivation, or concern.

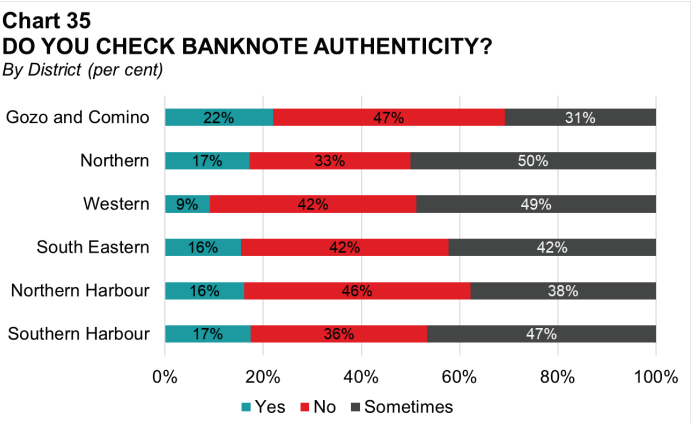
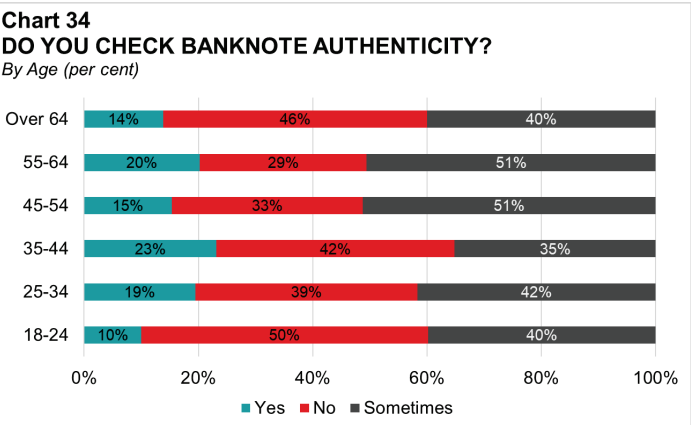
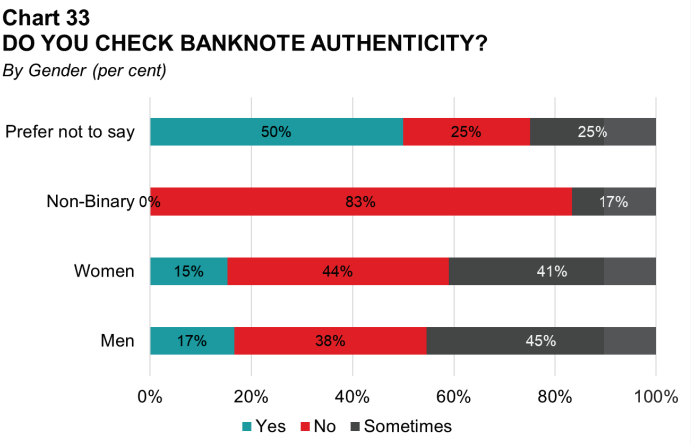


When comparing the Maltese survey respondents to their Dutch counterparts, a notable contrast emerges. More than half of the Maltese respondents (59%) actively examine their banknotes for authenticity, whereas only a minority of Dutch survey respondents (23%) do so.

It is evident that men tend to check their banknotes more regularly than women do, as per Chart 37. Non-binary respondents are more likely not to check, whereas the rest are more likely to examine their banknotes.

When examining the data by age groups, it becomes evident that the 18-24 and over 64 age ranges are the two least likely groups to verify the authenticity of their banknotes. Conversely, the participants within the 45-54 and 55-64 age groups emerge as the two most likely groups to engage in the practice of checking their banknotes, as shown in Chart 34.

Gozo and Comino, and the Northern Harbour districts are the least likely to check their banknotes, while the Northern and the Southern Harbour respondents were the most likely to check their banknotes as depicted in Chart 35.



Security Features

Participants were asked about the authenticity-checking process of banknotes and to rate it on a scale of 1 to 10. A value of 1 indicates a high level of difficulty, and a value of 10 indicates that it is easy. The average rating given by all participants was 6.5, indicating that the majority found the process manageable and not overly

demanding. However, the result also suggests that participants may lack confidence in accurately identifying genuine banknotes.

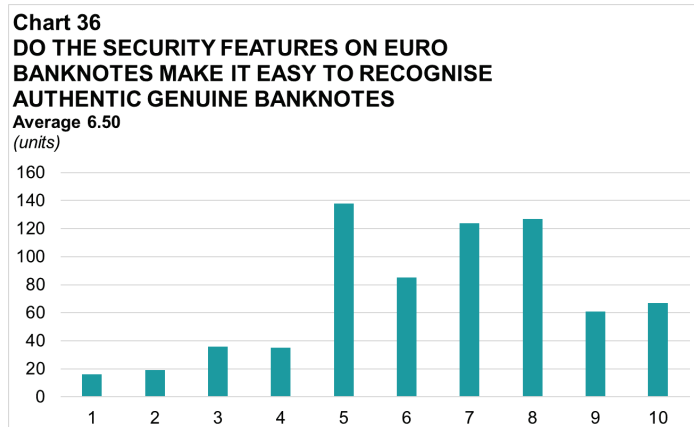
It's worth noting that a significant portion of responses fell within the range of 5 and above, which is a positive indicator. This indicates that most respondents do not encounter substantial difficulty when distinguishing between counterfeit and genuine banknotes.

The portrait watermark (18%), followed by the paper material (16%), are the two most frequently mentioned security features. The security thread (14%) and the portrait hologram (13%) are also well-known to most respondents.

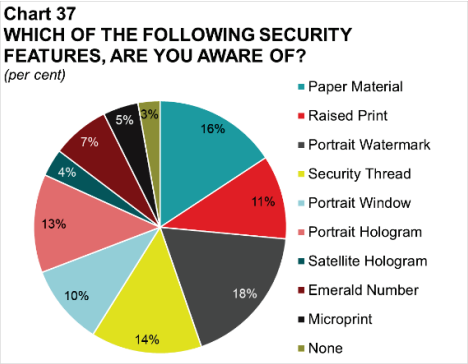
On average, most respondents can identify three or four security features found on Euro banknotes. Only 3% of respondents cannot recognize any of the security features listed to determine the authenticity of a Euro banknote. One possible reason for individuals struggling to recognize these features is the lack of education on how to identify them on Euro banknotes.

Furthermore, the survey revealed that Maltese respondents are more knowledgeable about the security features found on Euro banknotes compared to Dutch respondents, as only 3% of the former failed to mention any features, while 10% of the latter did not mention any (Marwijk et al., 2023).

The survey results indicate that both groups of respondents who participated in the survey are most familiar with the portrait watermark security feature.



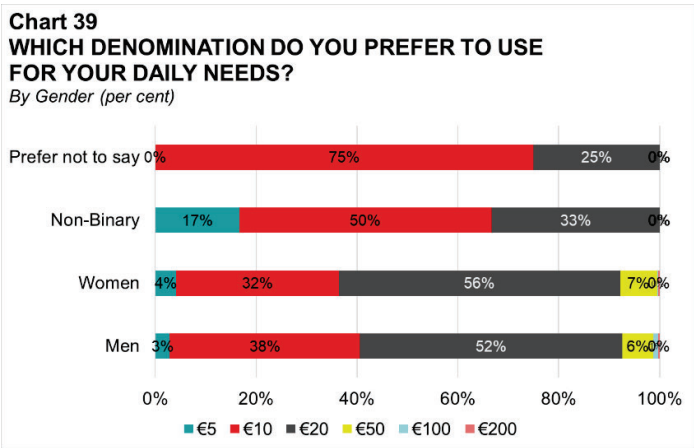
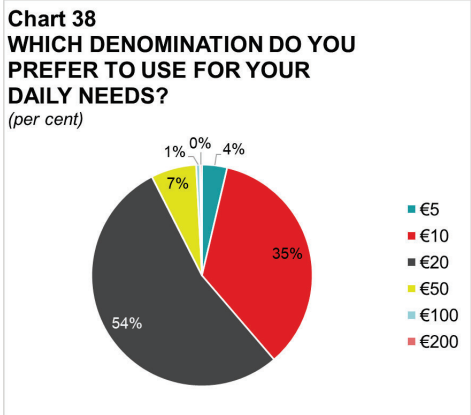
All respondents are similarly acquainted with the security features found on the Euro banknotes, but the most popularly known five are the following: Portrait Watermark, Paper Material, Security Thread, Portrait Hologram and Raised Print, as shown in Chart 37.

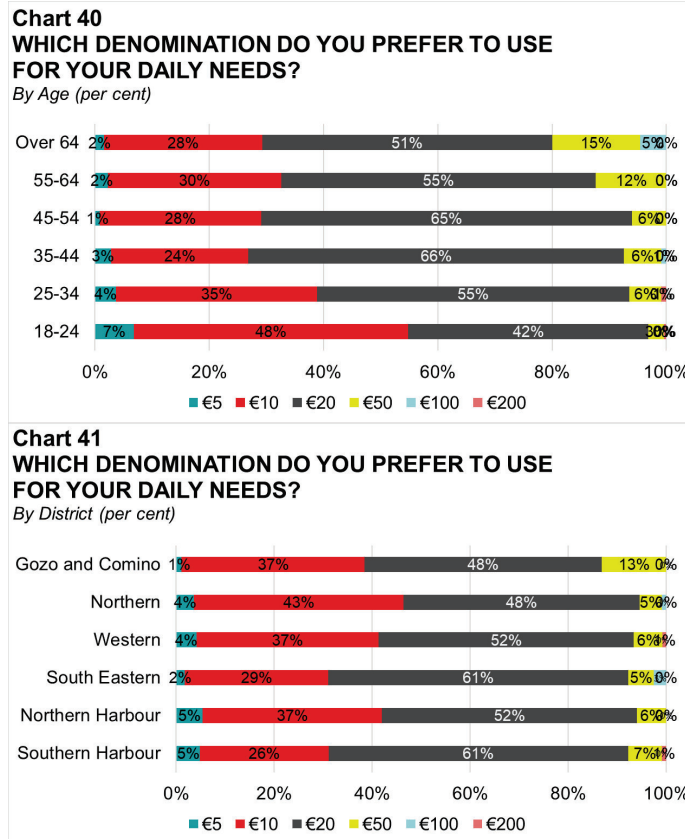


Denomination preference for use

When asked which denomination the respondents prefer to use for their daily needs, more than half of the respondents preferred to use the €20 banknote for their daily transactions, followed by the €10 banknote.

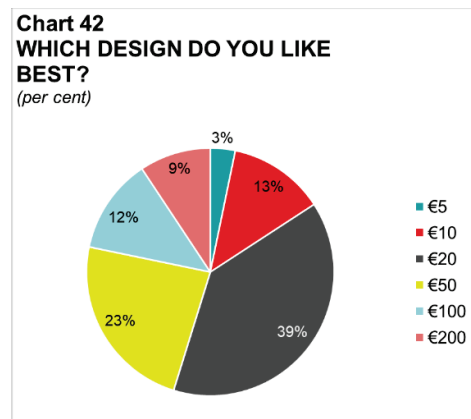
The €20 banknote was the most favoured to use for daily transactions among men and women. Non-binary and those who preferred not to disclose their gender preferred the €10 denomination. Across all age groups, the €20 banknote was the most popular choice, except for the 18-24 age group, which preferred the €10 banknote. It is irrelevant from which district the respondents were from because all districts agree that the €20 banknote was the most favoured.



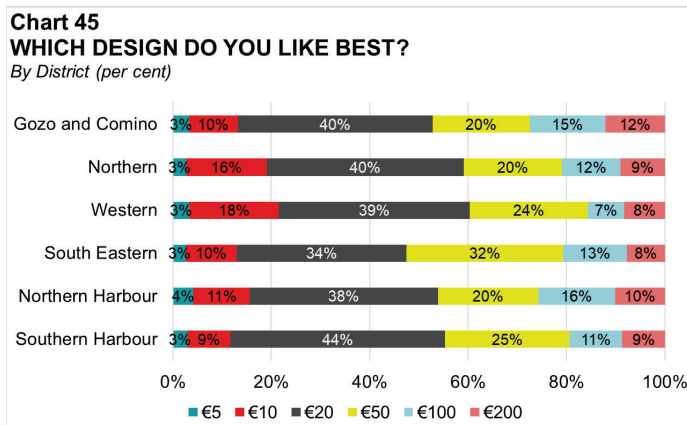
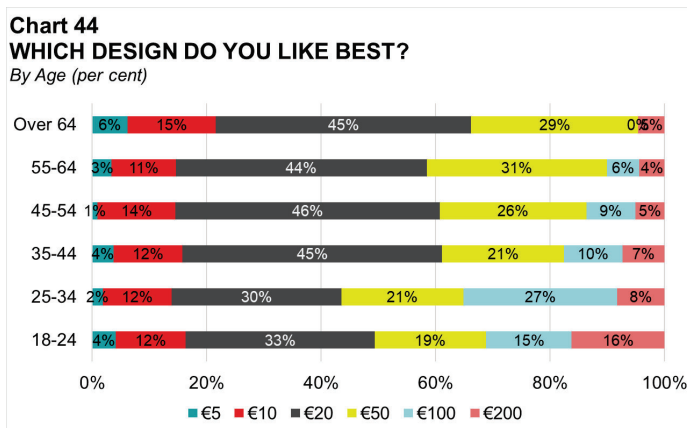
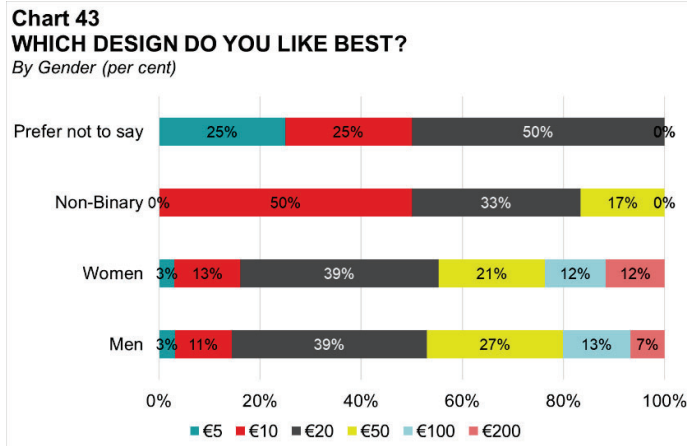


Most attractive denomination

In addition to being the most preferred denomination to use for daily transactions, the €20 banknote is also regarded as the most attractive banknote in terms of design, as shown in Chart 42. The €5 banknote is deemed the least favoured design among all the denominations in circulation by the participants. The most preferred and least preferred banknotes are in line with the results derived from the survey based in the Netherlands (Marwijk et al., 2023).



All gender categories, except for non-binary respondents, concur that the design of the €20 banknote is the most appealing. All participating districts and age groups also agree that the €20 banknote is the most attractive.



Elimination of the €0.01 and €0.02

When asked for their opinion on rounding of prices to eliminate the 1- and 2-Euro cent coins in the future, most of the respondents (62%) voted for 'Yes', while 33% disagreed with this change and the rest opted not to share their opinion on this matter (4%). All districts and age groups majorly agree with this change. With regards to genders, more than half of respondents from each category, except for those that did not disclose their gender are also in favour of this change. Please refer to the Chart 46 – 49 below.

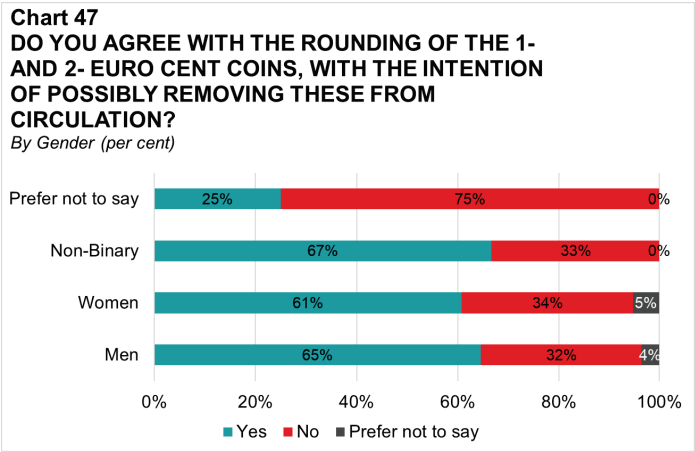
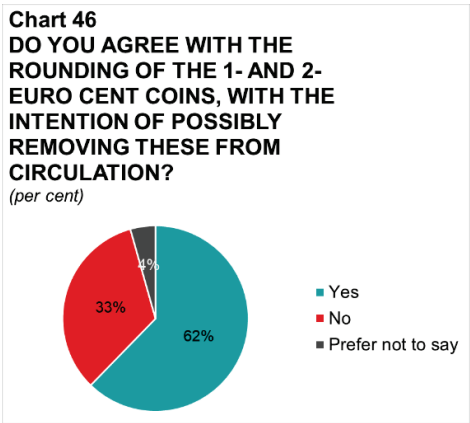


Chart 48
DO YOU AGREE WITH THE ROUNDING OF THE 1- AND 2- EURO CENT COINS, WITH THE INTENTION OF POSSIBLY REMOVING THESE FROM CIRCULATION?

By Age (per cent)

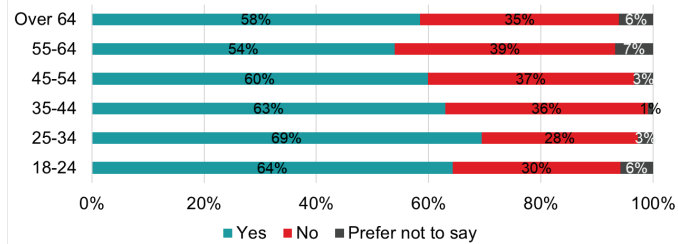
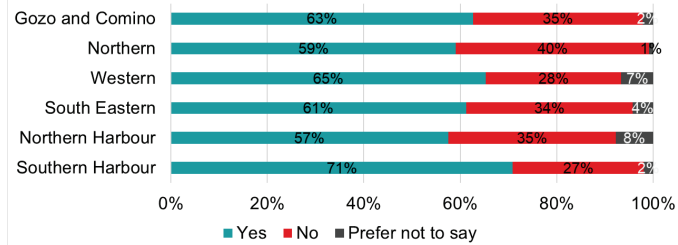


Chart 49
DO YOU AGREE WITH THE ROUNDING OF THE 1- AND 2- EURO CENT COINS, WITH THE INTENTION OF POSSIBLY REMOVING THESE FROM CIRCULATION?

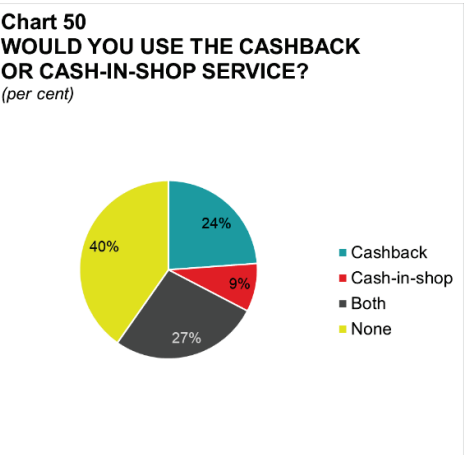
By District (per cent)



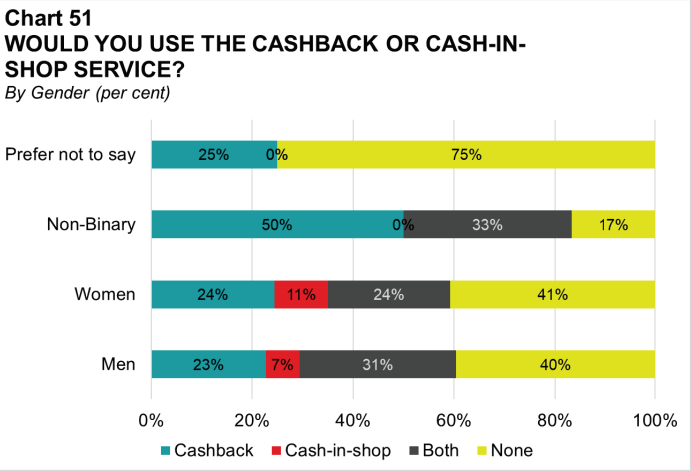
Cashback and Cash-in-shop

Cashback can be defined as a transaction at a POS terminal in which a cardholder asks the retailer to add an amount to the total purchase sum paid for by card or other means to receive that amount in cash along with the purchase. Cash-in-shop on the other hand is a service offered by a merchant, on behalf of payment service providers, to withdraw cash, which is not linked to a purchase of goods or services.

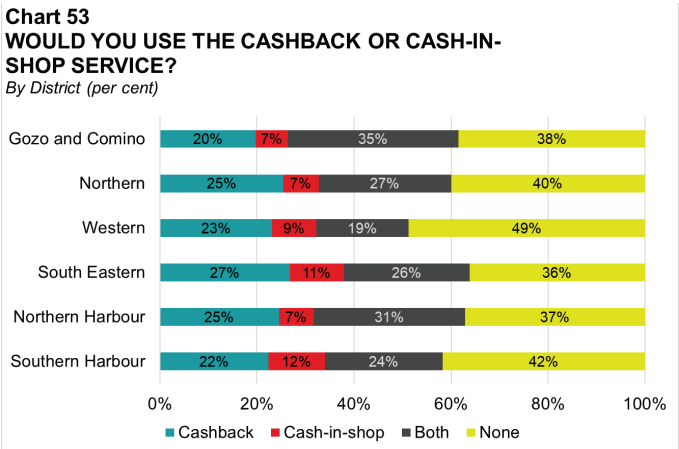
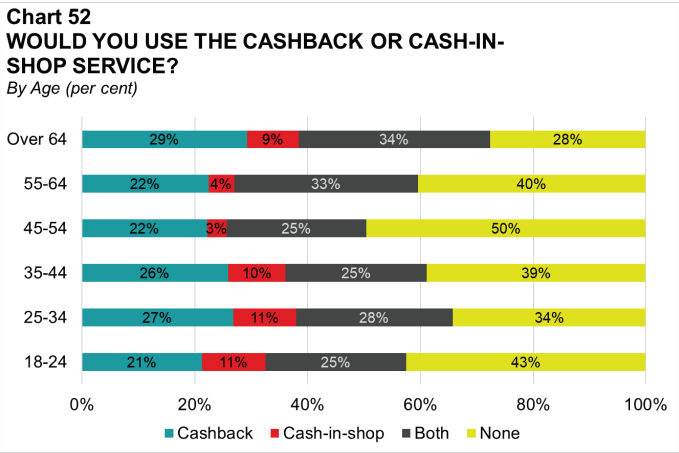
The participants have explained two similar services, which involve withdrawing cash from a retail shop. The services which are currently offered abroad are the Cash-back and Cash-in-shop. The respondents were requested to indicate whether they would use any, both or none of these services if they were to be offered in Maltese retail shops. It was noted that 60% of respondents indicated that they would make use of one or both services. However, 40% would not use any of the services described.



For men and women alike, both categories majorly stated that they would opt to use one or both services if they had to be introduced. The cashback service was preferred by most of the non-binary category. The remaining category ‘Prefer not to say’, would refrain from using any of these services mentioned.

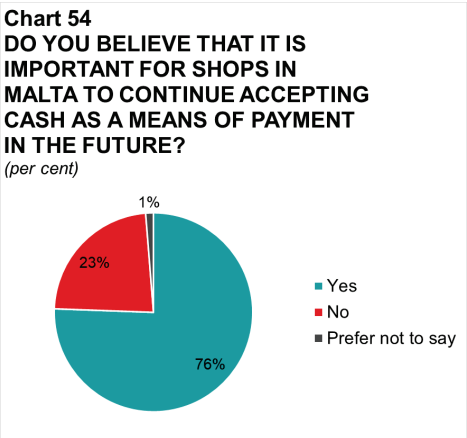


There is a considerable amount for each category who would not utilise any of the services, despite that a substantial percentage of all districts and age groups would use one or both services.



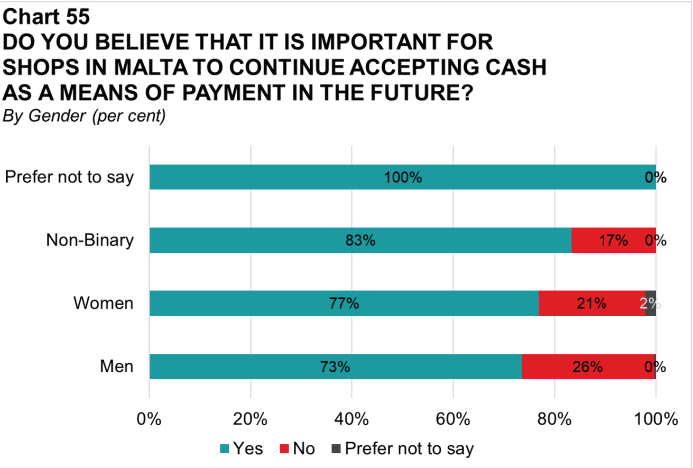
Future of Cash and Retailers

The majority (76%) declared that shops in Malta must not halt cash payment acceptance in the future. Only 23% of the sample do not find it important if shops in Malta stop accepting cash in the future, as shown in chart 54. This is because they favour digital payment methods when making transactions. The votes for ‘Yes’ were much lower than the result obtained from the Dutch survey, where 91% voted for ‘Yes’. This comparison shows that when compared to the Netherlands, Malta does not find it that important to

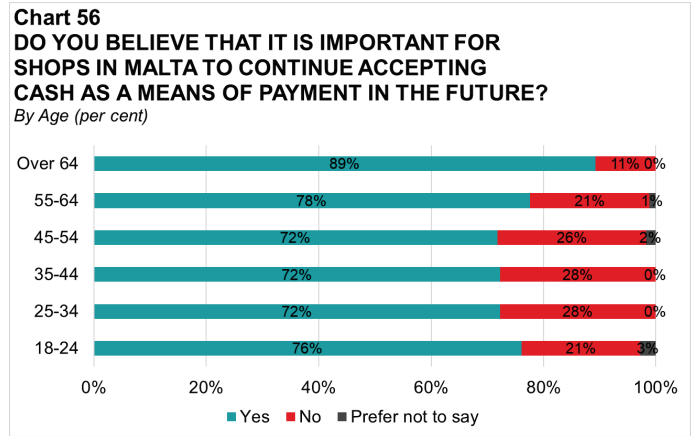


keep cash as an accepted payment method, indicating that many prefer digital payment methods (Marwijk et al., 2023).

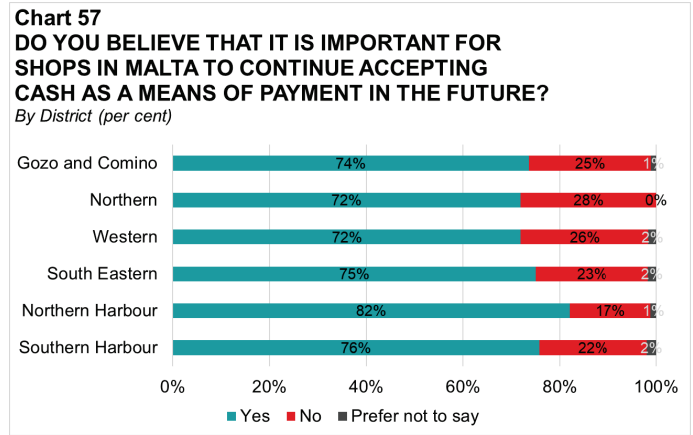
There was no substantial difference when comparing the views on cash acceptance across all gender categories, as they all agree that cash should remain as an accepted means of payment in the future. However, women find it slightly more important than men for shops in Malta to continue accepting cash in the future as depicted in Chart 55.



The older demographic, over 64, was the most supportive of this statement (89%), possibly due to the lack of access, familiarity or trust in digital payment methods. All other age groups also agree that cash should still be accepted in shops in Malta as a payment method in the future, but lower proportions.



Participants from the six different districts also showed a general agreement on future cash acceptance, but the Northern Harbour district had the largest share of respondents who supported this view. This result is shown in Chart 57.



4. Conclusion

From the findings derived from this survey, it is evident that Maltese citizens are becoming more inclined towards employing more modern payment methods over traditional ones. Therefore, this suggests that the majority of the Maltese public, in particular the younger generation, prefers to use digital payment methods over cash. This result is mainly because of convenience, time, and safety and security reasons. Those favouring cash mostly prefer it because of reasons attributed to control on expenditure, convenience, and absence of fees.

Despite this, the survey revealed that the majority of the respondents do carry banknotes and coins, although this amount varies with age. It was observed that in the older age group, the number of individuals carrying cash is higher. In addition, 84% of citizens indicated that they will continue to utilise cash in the near future.

The survey revealed that a majority of respondents from Malta expressed the belief that while cash is still in use, it is expected to decline in the future, with digital payment methods becoming the primary choice for most. Interestingly, saving cash at home received the fewest preferences as a reason for cash withdrawals, which marks a departure from past norm of hoarding. Instead, there has been a shift towards using cash for daily expenses.

The preference for digital payment methods may be contributing to the decline in cash deposits and withdrawals. When it comes to the frequency of these transactions per month, withdrawals were reported as 3 or less, while deposits were typically rated as 1 or never by the survey participants. This phenomenon could be explained by the direct transfer of individuals' salaries to their bank accounts, resulting in reduced cash handling compared to the past. While the use of cash for everyday transactions is declining, it's worth noting that Malta stands out with a notably high number of banknotes in circulation per capita, which suggests a significant proportion of migrant workers receiving their wages in cash and expatriates may experience difficulties to open bank accounts.

Upon scrutinising the responses, a noteworthy observation emerged. The general public has relatively weak knowledge and awareness regarding the authenticity of banknotes, as evidenced by an average rating of 6.5 out of 10, indicating a lack of confidence in recognizing banknote security features. To tackle this issue, the Currency Operations Department takes the initiative to regularly organize educational sessions, targeting a diverse audience ranging from pre-adolescents to senior citizens, with the primary aim of enhancing public awareness.

Among the participants, more than half routinely verify the authenticity of their banknotes, albeit with varying frequencies. It is noteworthy that the portrait watermark was the security

feature most frequently mentioned by the respondents. It is crucial that individuals learn how to recognise a counterfeit banknote to protect oneself from fraud, especially when considering the number of counterfeit classes discovered in circulation. Over 200 counterfeit classes were discovered locally of the first and second series of the Euro banknotes and over 500 counterfeit classes of the first and second issue of Euro banknotes were confiscated for the members of the European Union that adopted the Euro.

The €20 banknote secured its position as the favoured note for daily transactions and earned the highest preference for its design among the Maltese population.

The majority of the public believes that prices could be rounded in the future , to potentially eliminate the 1- and 2- euro cent coins from circulation. Some respondents even deemed the 1 and 2-cent coins worthless and useless.

With regards to the possibility of introducing the services 'cash-in-shop' and 'cash-back' in retail shops, the majority indicated that they would use one or both services. Moreover, a significant number of respondents indicated that they would not use any of the services mentioned. Cash accessibility through ATMs and bank branches in Malta is still good when compared to other EU member states and this could be another reason why the public does not feel the need for additional points of access to cash.

Finally, the last question reveals that most respondents believe it is essential for retail shops to continue accepting cash as a payment method in the future. This underscores the fact that cash cannot be entirely phased out. Besides the concern that eliminating cash would infringe upon the independence and freedom of choice of the older generation, there is also the rare but consequential possibility that disruptions, either directly or indirectly related to the digital world, could lead to significant economic disturbances. Therefore, cash offers a sense of security, dependability, and inclusivity.

The new legislative proposal on the legal tender of euro banknotes and coins, currently under discussion, will enforce mandatory acceptance of cash. This confirms that the security of usage of Euro cash will remain in the future.

References

European Central Bank (2022) *Study on the payment attitudes of consumers in the Euro Area (space)* – 2022, European Central Bank. Available at: https://www.ecb.europa.eu/stats/ecb_surveys/space/html/ecb.spacereport202212~783ffdf46e.en.html (Accessed: 14 September 2023).

Marwijk , M. van, Tollenaar , S. and Verhulst, L. (2023) *Knowledge and appreciation of euro banknotes in the Netherlands*, De Nederlandsche Bank. Available at: <https://www.dnb.nl/media/ad4kftzq/knowledge-and-appreciation-of-euro-banknotes-in-the-netherlands-2023.pdf> (Accessed: 30 August 2023).

NSO (2014) *Districts (Local Administrative Unit)*, NSO Metadata. Available at: <https://metadata.nso.gov.mt/classificationdetails.aspx?id=Districts+%28Local+Administrative+Unit%29> (Accessed: 05 September 2023).

NSO (2023) 'Census of population and housing 2021'. Valletta: National Statistics Office.