Occasional Studies

Volume 25 – 3

Attitudes of Dutch merchants towards the digital euro

DeNederlandscheBank

EUROSYSTEEM

Attitudes of Dutch merchants towards the digital euro

Authors: Igo Boerrigter, Nicole Jonker and Ria Roerink

The Occasional Studies series aims to disseminate thinking on policy and analytical issues in areas relevant to De Nederlandsche Bank. Views expressed are those of the individual authors and do not necessarily reflect official positions of De Nederlandsche Bank.

De Nederlandsche Bank N.V.
PO Box 98
1000 AB Amsterdam
The Netherlands
Internet: www.dnb.nl/en
Email: info@dnb.nl

Contents

Executive summary

The national central banks of the Eurosystem are preparing for the possible issuance of a digital euro. This initiative aims to provide a universally accepted, secure, and reliable form of central bank money in the digital era in the eurozone. As cash usage declines, a digital euro will preserve the role of public money in everyday transactions and provide a backup payment system during network failures. Furthermore, it is seen as a means to enhance European strategic autonomy in payments.

Given the potential impact of a digital euro, De Nederlandsche Bank (DNB) conducted a survey among 1,023 merchants in the Netherlands to understand their attitudes towards this new form of public money. Merchants are pivotal for the smooth and successful introduction of the digital euro as a means of payment in physical payment locations, such as shops, restaurants, fuel and charging stations and in e-commerce, and will significantly influence consumer uptake.

The survey aimed to gather insights into the following research questions:
- How **aware** are Dutch merchants of the digital euro?
- What do they consider important **features** of the digital euro?
- What **opportunities** do they see?
- What **concerns** and **risks** do they see for their own company if it is introduced?
- How do they view **mandatory acceptance** of the digital euro?

The survey revealed that Dutch merchants' awareness with the digital euro is modest. Specifically, nearly 46% of merchants reported not having heard of the digital euro, while 43% had heard of it but lacked detailed knowledge. Only 11% of the merchants considered themselves well-informed on the subject. This limited awareness was observed uniformly across different sectors and business sizes. Additionally, the survey uncovered several misconceptions regarding the digital euro. For example, some merchants mistakenly believed that the digital euro would replace physical cash, while others thought it would function similarly to bitcoin. The low level of awareness among Dutch merchants was to be expected and can be attributed to the fact that DNB and the Eurosystem have deliberately not actively informed citizens and businesses about the digital euro, as European politicians have not yet made a definitive decision on its introduction. Consequently, most merchants don't know much about the digital euro, as they have not been confronted with it yet.

The prospect of an offline digital euro appeals most to Dutch merchants. They consider the following features of a digital euro essential:
- Security: over 80% of merchants rated secure payments as very important. They expect stringent security measures to prevent fraud and cyber threats.
- Reliability & offline functionality: about 77% valued the ability to conduct payments during internet or ICT outages. This feature is seen as the digital euro's most distinctive added value, providing a backup payment system akin to cash.
- Privacy: 68% emphasized the importance of customer privacy, desiring a means of payment that feels as private as cash transactions.
- Speed and convenience: 62% rated rapid payment completion in-store as very important, and 59% valued immediate settlement for enhanced cash flow.

The Eurosystem is actively investigating an offline variant of the digital euro, which promises to offer significant privacy assurances and the capability to conduct offline transactions, so that payments can continue even during outages of the internet or the ICT systems of payment service providers. The potential introduction could thus represent a noteworthy enhancement to the existing array of digital means of payment available within the Dutch market.

42% of merchants identified potential opportunities associated with the introduction of the digital euro, subject to cost neutrality. These opportunities were particularly noted by larger retailers and those who are more adept with digital innovations. Key opportunities included enhanced payment continuity and reliability, increased convenience for customers, and the stimulation of innovation and competition within the payments market. However, these cited benefits are contingent on cost neutrality for merchants.

Dutch merchants are concerned about additional costs and possible complexities when preparing for accepting a digital euro. Nearly 79% indicated apprehension about transaction fees, emphasizing that these fees should not surpass those associated with existing means of payment. Additionally, 66% of merchants reported concerns about the costs related to the implementation and maintenance of the digital euro. Potential technical issues during the introduction of the digital euro as a means of payment in their own business were mentioned by 63% as a prominent concern, and over 50% of merchants reported fraud and liability as potential risks. Many merchants have reservations about the digital euro, expressing concerns that it might introduce additional costs and complexities while not providing significant advantages.

Support for mandatory acceptance of the digital euro among Dutch merchants is currently limited. Proponents argued that, should the digital euro be granted legal tender status, consumers should have the right to utilize it for transactions. They also emphasized the importance of retailers adapting to modern advancements in payment technologies. Half of the merchants opposed mandatory acceptance, and 30% shared this opposition but recognized the concept and importance of achieving network effects. Conversely, 14% agreed with a legal obligation to accept the digital euro, with 6% remaining neutral. Opponents preferred maintaining a free choice for merchants in means of payment and questioned the added value of the digital euro.

Policy implications

Merchants are open to the digital euro's benefits, especially its offline use, but need assurance that adopting it will be easy, cost-effective, and risk-free. Policymakers must shape the introduction of the digital euro in accordance with these insights to ensure the digital euro is embraced as a welcome innovation. To facilitate a smooth introduction they should consider the following recommendations:

1. **Ensure an offline digital euro, as it has the most benefits:** for Dutch merchants, the focus should be on supporting offline functionality, a widely appreciated feature, and ensuring that it is included in the final product.
2. **Strive for cost neutrality:** cost is an important element for merchants in the introduction of the digital euro. Acceptance of the digital euro should not lead to higher transaction fees or other cost increases for merchants.
3. **High degree of safety and fraud prevention are necessities:** a public means of payment should have a high degree of trust. Ensuring

sufficient security is important to gain the trust of merchants.

4. **Reduce the implementation burden for merchants:** implement a phased rollout with pilot programs to identify and fix issues before a full launch and integrate the digital euro into existing payment infrastructure as much as possible to reduce the burden on merchants.
5. **Communicate clearly:** provide information well in advance to both merchants and the public before and during the introduction to address misconceptions and alleviate concerns.

The study contributes to existing literature by addressing a critical area: the merchants' perspective on the digital euro. The findings may aid policymakers and central banks in shaping the digital euro but must be contextualized. Merchant interviews were conducted in 2024, when little information was available. Negotiations between the EU Member States, the European Parliament and the European Commission on legislation to enable the introduction of the digital euro are yet to begin at the time of drafting this report. Upon reaching an agreement, the European Central Bank (ECB) can decide on issuing the digital euro and provide further information about its exact features. DNB will continue researching the digital euro to gauge businesses' and citizens' awareness, preferences, and concerns.

1 Introduction

The European Commission has laid the legal and policy groundwork for a potential introduction of the digital euro, complementing the technical and investigative work of the ECB. The Commission's legislative proposal is issued in June 2023 and currently debated by the European Council and the European Parliament. The digital euro is a retail central bank digital currency (CBDC), a digital form of public money available to consumers and merchants alongside cash.

The digital euro would serve as a versatile public means of payment, designed for both online and offline use. It would facilitate person-to-person payments, e-commerce and transactions in physical stores. The offline variant validates transactions directly between two devices (phone or payment card) ensuring privacy of the transaction by avoiding central systems or third-party intermediaries. It would allow for payments without an internet connection or even without a power network, making it useful during outages if users have pre-funded their wallet.

In this study we explore Dutch merchants' attitudes and behaviours regarding the digital euro using a survey. Merchants play a pivotal role in the potential success and widespread adoption of the digital euro. The adoption of the digital euro must be understood within the framework of two-sided market theory, which describes the interactions between two interdependent user groups – consumers and merchants. In such markets, the value of the platform to one group increases with the participation of the other, creating network effects. As Rochet and Tirole (2003) demonstrate, the success of a payment platform depends on achieving a critical mass on both sides of the market. Merchants are therefore not passive recipients of payment instruments; their acceptance of a new form of payment directly influences consumer adoption.

Recognizing this dynamic, the European Commission's legislative proposal for the digital euro explicitly grants it the status of legal tender with an obligation to accept for merchants. This legal obligation aims to overcome potential coordination failures in the early stages of adoption and to ensure that the digital euro can function as a universally accepted means of payment. It nevertheless remains analytically valuable to explore how merchants would respond to this new means of payment on a voluntary basis, which is an important research question to be addressed. Examining acceptance under voluntary conditions offers a useful, albeit imperfect, indicator of the underlying societal support for the digital euro. Nonetheless, it must be acknowledged that any observed level of support constitutes a snapshot in time and may evolve as the policy and technological landscape develops.

We start with examining the significance of costs associated with a new means of payment. Our study explores in greater depth the sensitivity of merchants to transaction fees. Kantar (2022) has shown that fees involved are an element that currently hinders merchants from accepting new means of payment. It concluded that fees were not seen as a determining factor in whether to accept a means of payment in isolation; rather, it is weighed against customer demand. Whereas this conclusion was based on qualitative research conducted among 138 merchants in all euro area countries, the current study provides further insights by testing the "price sensitivity" of merchants in ten different scenarios in the Netherlands.

Lastly, we examine how merchants want to be facilitated in case politicians would decide on the need to issue a digital euro. Kantar (2022) has shown merchants want a new payment instrument to be easy to use and intuitive, with minimal investments in appliances and payment technologies, e.g. by using their existing payment technology or using scanning technology available on their smartphone (QR codes, etc.). Crucial for merchants to accept a new digital means of payment seems to be a proficient level of integration with their day-to-day business activities and existing payment equipment and accounting systems. The integration of accounting tools, cash back, bonus points, and marketing activities as a way of supporting the introduction of a new payment service would be appreciated.

The remainder of this Occasional Study is structured as follows. Section 2 describes the setup of the research. Section 3 presents the results on the current practice regarding receiving payments from consumers by merchants. Section 4 provides the results on the attitudes of the Dutch merchants regarding the digital euro and Section 5 on their views regarding mandatory acceptance of digital euro payments and the measures that can be taken to support them preparing for the introduction of the digital euro. Section 6 discusses the findings and their implications. The questionnaire that has been used in the study can be found in the Annex.

2 Method

2.1 Setup survey

The research comprises two phases. The first phase concerns a qualitative study among 132 merchants, active in 11 industries. They were interviewed by market research company Conclusr in the Autumn of 2023. This part of the study was highly exploring in nature and focused on answering the following key questions:

- What opportunities do merchants see with the introduction of the digital euro?
- What concerns/bottlenecks do merchants see for their own business when customers want to pay with the digital? And for the business community as a whole?
- What sentiments do merchants have vis-à-vis the introduction of the digital euro?
- How do merchants want to be supported in the introduction of the digital euro?

The second phase of the study concerns a quantitative study among 1.023 merchants active in 11 industries in the Netherlands. Interviews for this part were held in the period 13 May – 30 July 2024. Insights from the first phase served as input for the questionnaire used in the second phase, developed collaboratively by DNB and Conclusr. The quantitative study addressed the following research questions:

- To what extent are merchants familiar with the digital euro?
- What share of merchants expects to benefit from the introduction of the digital euro?
- What share of merchants expects certain opportunities from the introduction of the digital euro in their own business?
- What share of merchants expects certain bottlenecks in the introduction of the digital euro in their own business operations?
- What is the position of merchants on a legal acceptance obligation?
- How do merchants want to be supported in the introduction of the digital euro?

This quantitative phase sought to analyse the perspectives of Dutch merchants accepting C2B payments, including differences between industries and sales channels, both in-person and online.

Prior to launch, Conclusr tested the questionnaire for length, consistency, and validity, followed by a short pilot phase. Subsequent adjustments were made as required. The telephone survey instrument was programmed in a CATI (Computer Assisted Telephone Interviewing) system, with an average interview duration of 23 minutes. The Annex provides more information about industries included in the survey and the questionnaire.

2.2 Sample

Conclusr contacted individuals involved in decision-making regarding the acceptance of retail payments at their establishment/ organization[1]. This criterion ensured respondents' relevance to the study's focus on the adoption of digital means of payment. Telephone interviews were used, as they provide the best guarantee of sufficient depth of interviews, completion of questionnaires by merchants and their ability to increase response levels.

1 Companies and organizations that accept payments from consumers at physical points-of-sale and/or via e-commerce are within the scope of this study. Other companies, including those that operate vending machines, financial institutions and providers of utility services are not within scope to reduce the costs and complexity of the survey. In this report terms like merchants, retailers and companies are used interchangeably.

The survey population consists of establishments from 11 pre-selected industries. Sample addresses were sourced from BoldData, which utilizes Dutch Chamber of Commerce records. The sample was stratified by industry and firm size (three categories) to ensure sufficient variation in the sample. The target was 12 observations per industry in phase 1 and around 100 per industry in phase 2. For fuel and charging stations and department stores, fewer than 100 responses were collected due to respondent eligibility requirements.

The overall response rate in the second phase of the study was 19.9%. In general, the reasons for not participating in the research were not related to the subject of the research. The reasons for not participating are, for example, no interest in participating in surveys or no desire or time to participate. Because the reasons are not related to the subject of the research, it is unlikely that it has led to biased results. Table 1 shows the distribution of the sample in the second phase by industry and firm size, based on the number of employees, including the owner. For companies/organizations consisting of multiple establishments, the total number of employees for all establishments has been used.

Table 1 Number of observations by industry and firm size

	1 - 9 employees	10-99 employees	100 and more employees	Total
Supermarkets	16	39	45	100
Department stores	5	11	20	36
Retail food and beverages	67	28	9	104
Retail non-food (low amounts, high purchase freq.)	79	15	10	104
Retail non-food (high amounts, low purchase freq.)	77	20	5	102
Entertainment	35	56	10	101
Hospitality and catering	55	43	3	101
Street vending	91	10	2	103
Fuel and charging stations	25	32	13	70
Personal and household services	79	21	0	100
Public services	14	39	49	102
Total	**543**	**314**	**166**	**1,023**

2.3 Weighing

Due to stratification of the establishments in our sample by industry and firm size, it does not perfectly reflect all companies/organizations in the Netherlands that influence the decision-making about the acceptance of means of payment. To correct for this, we have reweighed the results in our sample, so they better match the actual mix of establishments with influence on the decision-making regarding the acceptance of means of payment. The tables and charts presented in sections 3 to 5 show reweighed results from the second phase sample. The quotes from merchants in these sections come from the first phase of the study.

2.4 Limitations

This study was conducted among Dutch merchants and thus cannot readily be extended to the entire euro area, nor broader. DNB included merchants who accept payments from consumers in exchange for the delivery of a good or service. Businesses who only receive payments from businesses or other organisations (B2B) were out of scope. Furthermore, companies who operate vending machines have not been included, since this would overly complicate the execution of the survey.

A second limitation in survey-based research arises when respondents are asked to evaluate or express intentions regarding a product or service that does not yet exist, such as a digital euro. This introduces the risk of hypothetical bias, whereby respondents may overstate or misrepresent their preferences and intended behaviours due to the abstract nature of the scenario. Without concrete experience or contextual familiarity, respondents rely on assumptions, expectations, or idealized notions, which may not align with their actual behaviour once the product becomes available. Loomis (2011) emphasizes that the degree of hypothetical bias increases with the novelty and complexity of the product in question. As such, findings from surveys on emerging technologies or policy instruments, such as CBDCs, should be interpreted with caution, particularly when used to forecast adoption or behavioural impact.

3 Current payment practice Dutch merchants

This section examines the current payment practices and experiences of merchants. The analysis includes an evaluation of the perception of existing means of payment in terms of costs and reliability. Furthermore, the willingness of merchants to adopt a new means of payment is explored. This investigation provides a context for the introduction of a digital euro and illustrates the general attitude towards new means of payment without prior associations with the digital euro.

3.1 Acceptance of means of payment

In the Netherlands, both cash and debit card payments demonstrate a high acceptance rate among physical stores, at 92% and 80% respectively. These are followed by credit cards at 46% and gift cards at 42%. Significant variations can be observed across different industries regarding the acceptance of these means of payment. In many industries, the acceptance rate for both cash and debit card payments exceeds 90% or even reaches 100%. However, in public services, the acceptance rate of cash is only 66%, while debit cards have a 70% acceptance rate in personal and household services.

Table 2 Acceptance of means of payment (physical store)

	Cash	Debit card	Credit card	Gift card	iDEAL	Payment request	On account	Fuel card	Credit transfer	Direct debit	Other
Supermarkets	100%	100%	67%	73%	9%	9%	22%	0%	9%	0%	1%
Department stores	100%	100%	75%	92%	27%	4%	42%	0%	16%	0%	0%
Retail food and beverages	99%	100%	61%	58%	14%	28%	45%	1%	19%	0%	3%
Retail non-food (low amounts, high purchase freq.)	97%	93%	63%	58%	27%	22%	38%	0%	11%	0%	0%
Retail non-food (high amounts, low purchase freq.)	88%	86%	39%	31%	29%	12%	44%	1%	27%	0%	1%
Entertainment	84%	100%	66%	16%	18%	6%	27%	0%	11%	0%	0%
Hospitality and catering	94%	91%	63%	47%	29%	3%	2%	0%	8%	0%	2%
Street vending	100%	95%	53%	11%	23%	19%	24%	0%	11%	0%	0%
Fuel and charging stations	95%	100%	88%	25%	22%	9%	31%	76%	10%	4%	0%
Personal and household services	90%	70%	34%	37%	23%	13%	21%	1%	22%	1%	2%
Public services	66%	79%	37%	19%	28%	4%	41%	1%	18%	1%	5%
Total	**92%**	**80%**	**46%**	**42%**	**25%**	**13%**	**22%**	**1%**	**17%**	**1%**	**2%**

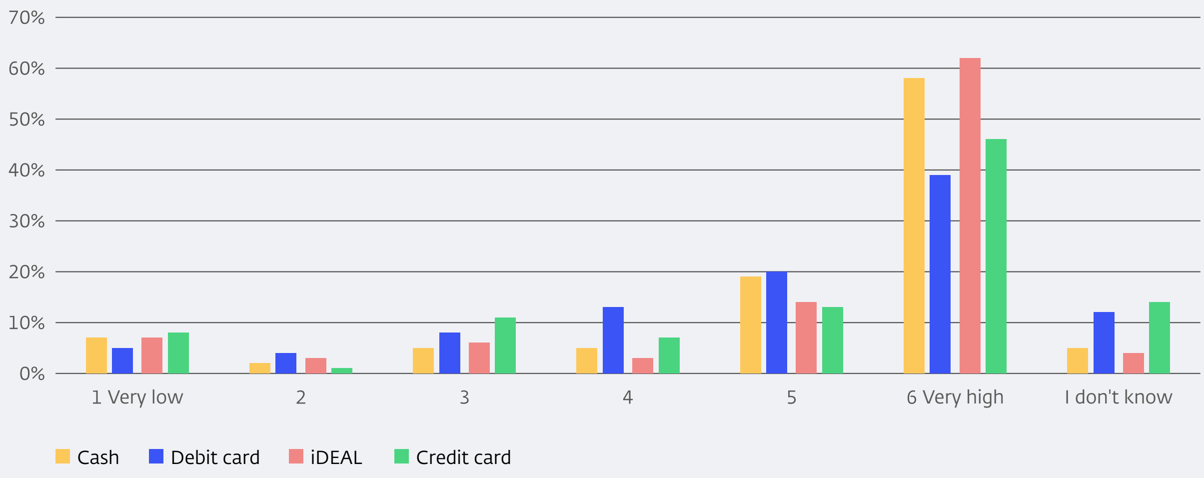
These percentages reflect acceptance rates per company, not per location. As a result, industries or sectors with a relative larger number of companies have a greater influence on the overall figures. See section 2.3 for more information on weighing.

Of the merchants that accept card payments, 74% have purchased their payment terminals, while 23% have entered into lease or rental agreements for their terminals. A small percentage (3%) utilize a combination of both options. Notably, supermarkets exhibit a higher tendency for leasing terminals, with 50% of these establishments opting for rental agreements, as opposed to 43% that have purchased their terminals. When asked about the anticipated timeline for replacing their current terminals, a significant portion (47%) of merchants indicated a preference to retain their existing terminals for as long as possible. Additionally, 12% of merchants foresee the renewal of their terminals within the next three years, with another 7% planning updates within the subsequent three-year period. 24% of merchants noted that the decision to replace terminals would be contingent upon the supplier or rental company that provides the terminals.

Online payment acceptance is notably diverse. iDEAL payments are most widely accepted, with 86% of online retailers accepting this means of payment. Additionally, credit cards (50%), bank transfers (60%), and PayPal (32%) are commonly accepted. Supermarkets represent a unique case, with 60% accepting debit card payments upon delivery of goods.

The most utilized means of payment are regarded as reliable, with low susceptibility to disruptions. A significant proportion of merchants, 77%, regard cash as reliable, assigning it a score of 5 or 6 on a 6-point scale, in comparison to 59% for debit cards (figure 1). Conversely, only 9% rate these options as unreliable, assigning a score of 1 or 2, with an outlier of 20% among merchants in the catering industry. For online payments, 76% of retailers find iDEAL reliable, whereas credit cards receive a reliability score of 59%.

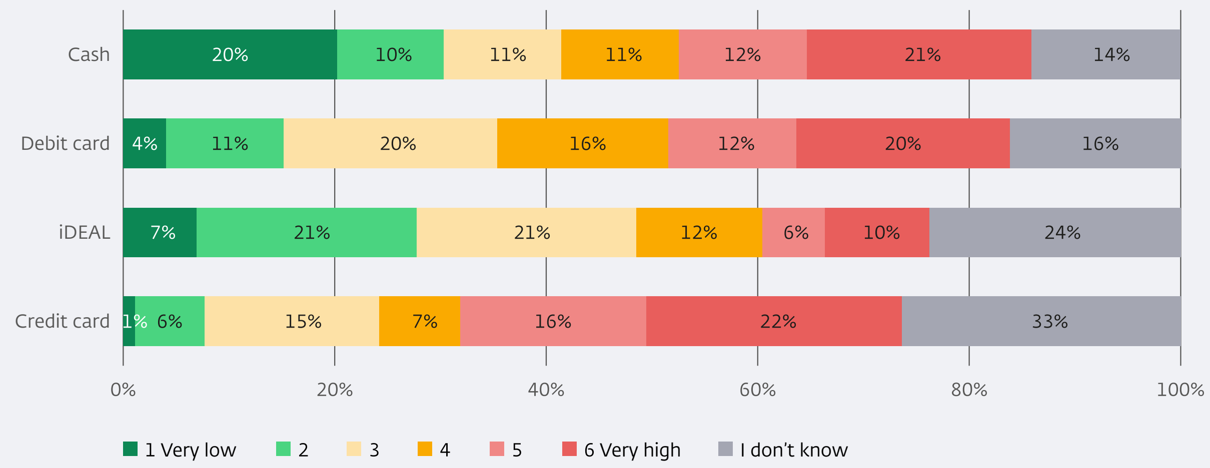
Figure 1 Perceived reliability different means of payment, according to merchants



Notably, the perception of transaction fees for cash payments among merchants is that they are either equivalent to or lower than those for debit card payments. Interestingly, 20% of merchants view cash transaction fees as very low, while only 4% hold the same view regarding debit card payments. Conversely, both cash and debit card payments are seen as having very high transaction fees by 21% and 20% of merchants respectively. Cash is particularly perceived as a low cost means of payment within the catering and personal and household services sectors. This perception is likely due to merchants utilizing received cash for other transactions, thereby reducing deposit and processing fees, or not accounting for the time spent handling cash as a cost. This contrasts with research conducted by Panteia (2024), which indicated that the total average cost of cash payments surpasses that of debit card payments. This suggests that the generalized assertion that cash payments are more expensive than debit card payments does not align with the experiences of all merchants.

In the context of online payment systems, iDEAL is perceived as significantly less costly than credit cards, which aligns with actual transaction fees. 28% of merchants perceive that iDEAL has low transaction fees (rated 1 or 2 on a 6-point scale), in contrast to only 7% for credit cards (figure 2). Moreover, 38% of retailers regard credit card fees as high or very high (score of 5 or 6), compared to 16% for iDEAL. This could be an explanation why more than two-thirds of online merchants indicate that they actively steer customers toward their preferred means of payment.

Figure 2 Perceived transaction costs by means of payment, according to merchants

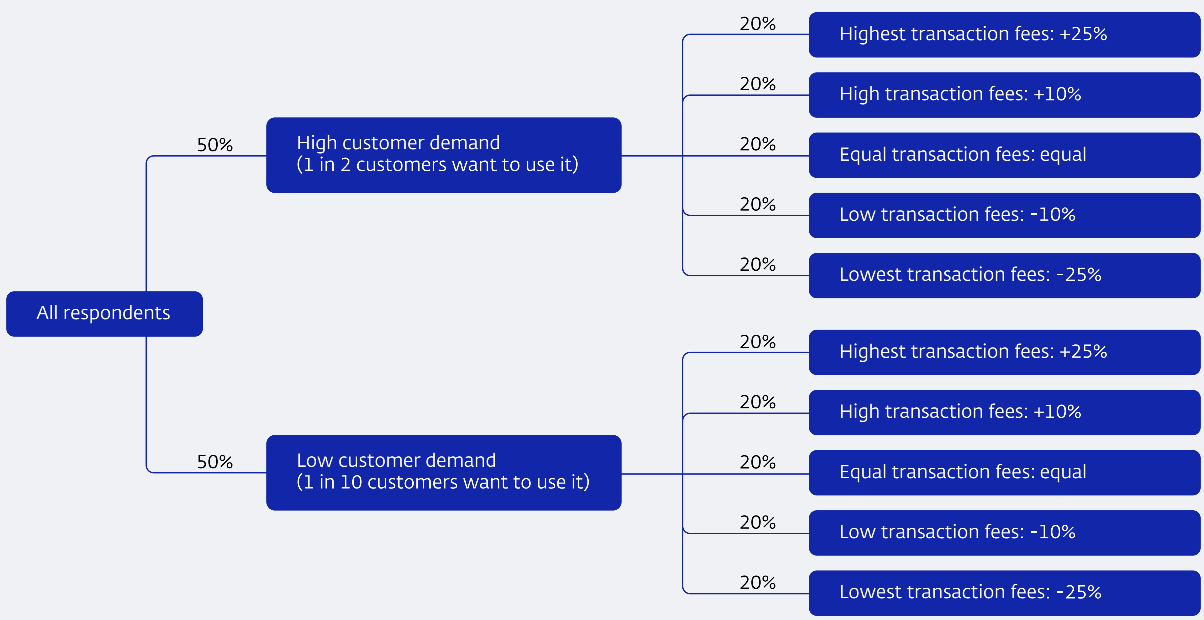


Merchants consider fees a very important topic, yet it is notable that these are not a direct reason to switch payment service providers. For example, more than half of online sellers say fees are a reason to switch providers, but only 17% have done so in the past seven years for that reason. When specifically asked what they pay per transaction, more than half of the merchants say they do not know. Those who do know estimate their transaction fees at an average of €0.09 for in-store transactions and €0.24 for online transactions.

3.2 Impact of fees and customer demand on propensity to accept

To gain insight into the role that costs play in the acceptance of a new means of payment, the price sensitivity of retailers has been further examined. To test the "price sensitivity", merchants were presented with one of ten different scenarios, in which the level of transaction fees and customer demand were the two factors that varied across scenarios (figure 3). Scenarios were defined by a customer demand of 1 in 10 or 1 in 2 customers that would like to pay with the new means of payment. These groups were further split into five pricing scenarios which were defined based on a comparison with the average transaction fees of existing and generally accepted means of payment (-25%, -10%, equal, +10%, +25%). All merchants were assigned a scenario at random and were asked if they would accept this new means of payment in this scenario.

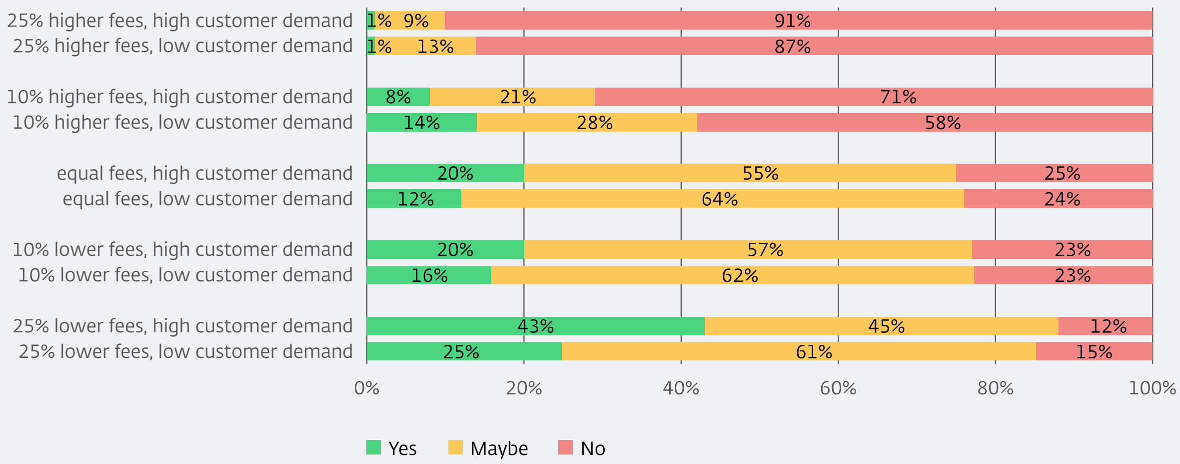
Figure 3 Ten scenarios based on customer demand and transaction fees



The impact of transaction fees

Merchants respond strongly negative to higher transaction fees, while lower fees do not immediately generate enthusiasm. This is evident from the results on price sensitivity for new means of payment in store as well as for online sales. When transaction fees are comparable to the existing means of payment and customer demand is low, 12% of in-store retailers say they would accept the new method in case of, 64% say they might, and 24% say they would not (figure 4). In case of high customer demand, the propensity to adopt the new means of payment is higher.

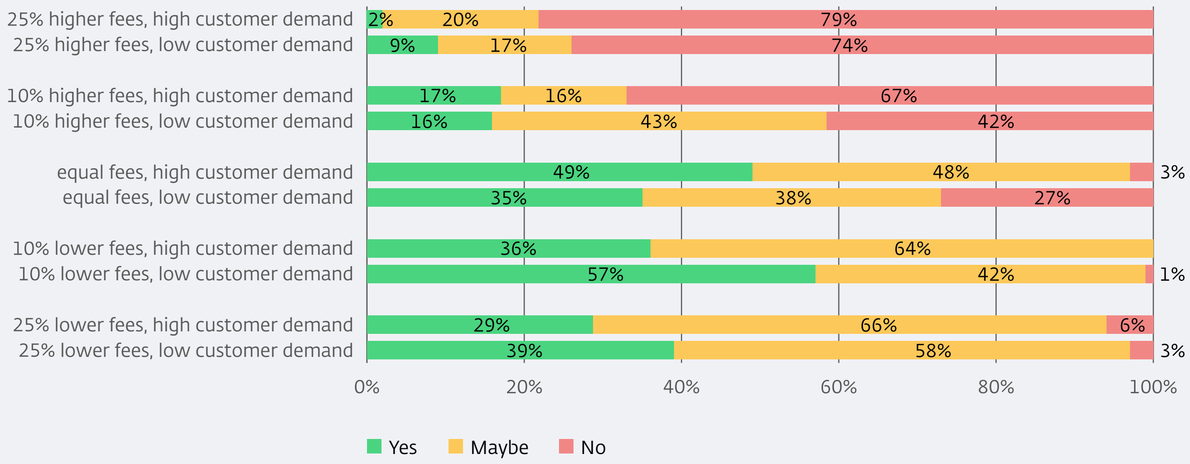
Figure 4 Willingness to accept a new means of payment by transaction fee (compared to current means of payment) and customer demand (physical store)



The propensity to accept a new means of payment decreases significantly with higher fees. When fees are 25% higher, the proportion of those who do not want to accept it rises from 24-25% to as much as 87-91%, depending on customer demand. Remarkably, the effect of lower transaction fees is much less pronounced. At 25% lower fees, only 25- 43% of retailers indicate that they will definitely accept the new means of payment.

For online purchases, higher transaction fees also lead to lower acceptance rates, but the average acceptance rate is higher compared to physical stores. At equal fees, 35-49% indicate they definitely want to accept the means of payment and 3-27% do not want to accept it (figure 5). At relatively lower fees, the willingness to accept the new means of payment increases only slightly. Relatively higher fees again have a strong negative effect on acceptance rates. For example, 74-79% of merchants indicate they will not accept the new means of payment at 25% higher transaction fees compared to their existing means of payment.

Figure 5 Willingness to accept a new means of payment by transaction fee (compared to current means of payment) and customer demand (online)



The impact of customer demand

When transaction fees are equal or lower, the willingness to accept the new means of payment among in-store retailers increases, in case of high customer demand. Conversely, at higher fees, the willingness to accept a new means of payment significantly decreases as more people want to use it (figure 4). Merchants view high customer demand negatively when transaction fees are relatively higher. The explanation seems to be that merchants face higher costs with more usage and higher fees. This is like their current experience with credit cards, which they also try to discourage as much as possible.

Merchants who are reluctant to adopt a new means of payment cite lower costs and greater customer demand as key incentives. Contrary to expectations, merchants in scenarios with higher transaction fees and lower customer demand did not express unique responses. Lower transaction fees and increased customer demand were factors mentioned in all scenarios. Additionally, one fifth of merchants indicated that they would not consider adopting this new means of payment under any circumstances. This response was more frequently observed in scenarios involving higher transaction fees, further reinforcing the idea that merchants are particularly sensitive to increased costs.

4 Merchants' awareness and attitudes toward the digital euro

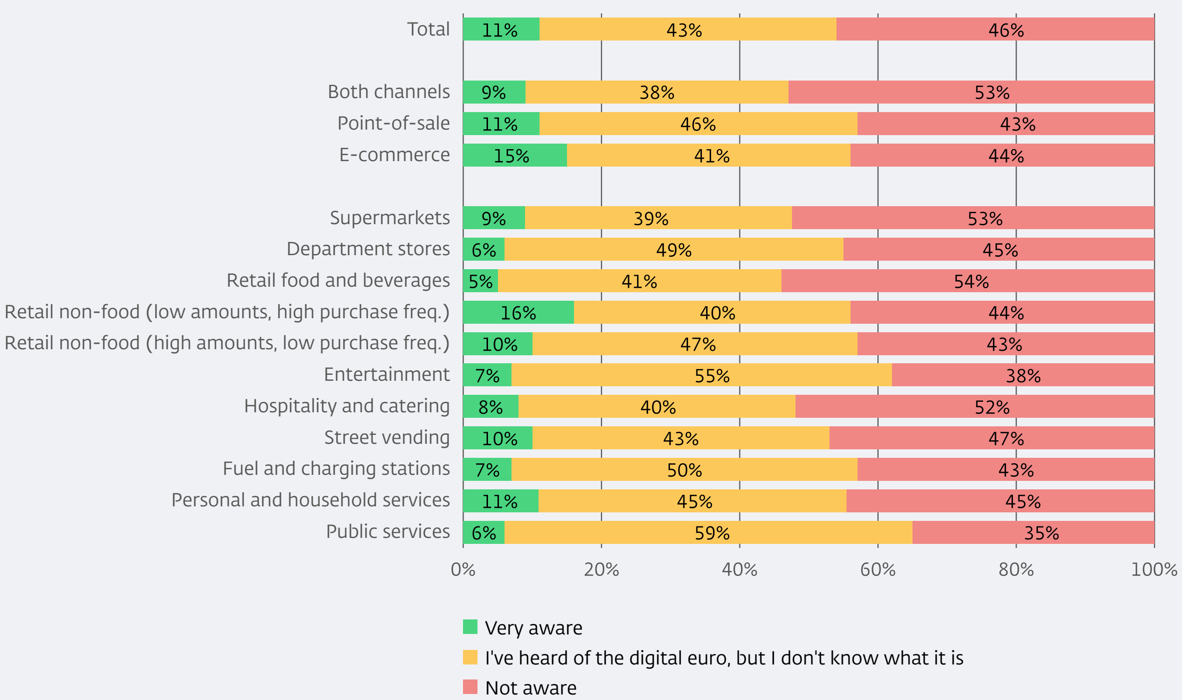
This section examines the awareness and attitude of Dutch merchant towards the digital euro. It explores the current associations with the digital euro. Additionally, insight is given on important or preferred features for the digital euro.

4.1 Merchants awareness of the digital euro

Measured levels of awareness regarding the digital euro among Dutch retail enterprises and other organizations that accept consumer payments are limited. A plurality of retailers (46%) report being unfamiliar with the concept of the digital euro (figure 6). An additional 43% indicate having heard of it but lack a substantive understanding of its nature or implications. Only a minority – approximately 11% – claim to be well-informed. This outcome closely mirrors awareness levels observed among consumers (Bijlsma et al., 2024) and is not unexpected given the absence of targeted awareness campaigns. At present, information about the digital euro is primarily disseminated through general news coverage on its political developments.

The group that identifies as well-informed is familiar with the current policy discussions and the development of the digital euro, including the European Central Bank's investigation. However, even within this self-identified informed group, notable misconceptions persist: 9% equate the digital euro with cryptocurrencies such as Bitcoin, 8% perceive it as a replacement for physical cash, and another 8% associate it with increased governmental surveillance. These misperceptions among merchants reflect those often heard among consumers (Bundesbank, 2024). This suggests that actively addressing misinformation and dispelling myths may be beneficial for both consumer and merchant audiences.

Figure 6 Merchants show limited awareness of the digital euro



4.2 Sentiment towards the digital euro and expected opportunities

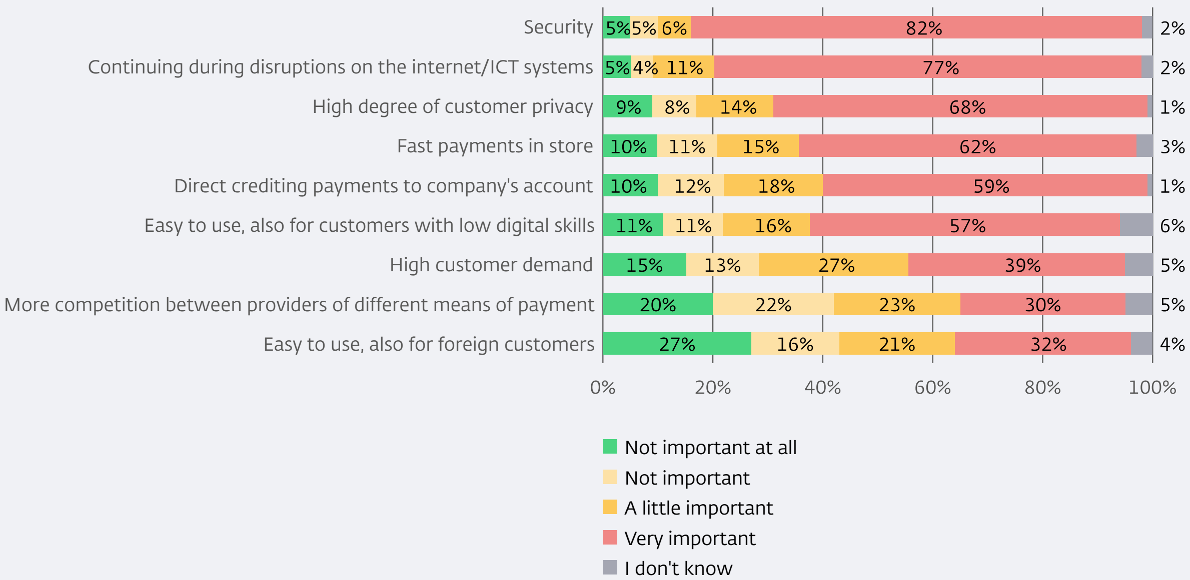
A significant divergence in sentiment is observed between merchants operating physical retail locations and those running online-only stores. The latter group demonstrates a markedly more positive attitude toward the digital euro. This distinction is evidenced by open-ended responses collected at the conclusion of the survey, in which participants were invited to express their thoughts and emotions regarding the digital euro. Negative sentiment is present among 31% of online-only vendors, whereas this figure rises substantially to 63% among brick-and-mortar retailers. Additionally, 29% of respondents express a general lack of enthusiasm. Common concerns include perceived redundancy or a lack of added value (24%), as well as privacy-related apprehensions (12%). The hospitality and catering sector, in particular, exhibits elevated levels of scepticism.

Among those who do not perceive opportunities or remain undecided, the predominant reasons include a perceived lack of added value relative to existing means of payment. Another cause is insufficient clarity regarding the operational mechanics and features of the digital euro. This reflects a broader phenomenon of "unfamiliarity breeds disinterest," and underscores the need for targeted information and stakeholder engagement. The perceived added value of a digital euro differs significantly between institutional and individual actors. For public authorities, such as the European Commission or the European Central Bank, the digital euro serves institutional objectives tied to broader societal goals, such as enhancing strategic autonomy within the European Union. In contrast, individual merchants (as well as consumers) tend to evaluate the digital euro from a personal, utilitarian perspective, focusing primarily on the question: "What's in it for me?"

Approximately one-quarter of merchants expressed positive expectations regarding the digital euro, often reflected in their stated desire for more information. Positive expectations are frequently linked to the perceived innovation potential associated with the possible introduction of a digital euro. When asked which attributes would make the digital euro an attractive payment instrument, the most frequently cited criterion was security, with 82% of merchants rating it as 'very important' (figure 7). Notably, the term 'security' was not further defined in the survey and may encompass a range of interpretations, including both fraud prevention and physical safety (e.g. protection against robbery). This emphasis on security is particularly relevant considering the growing incidence of fraud in digital payments, especially the rise of authorized payment fraud.

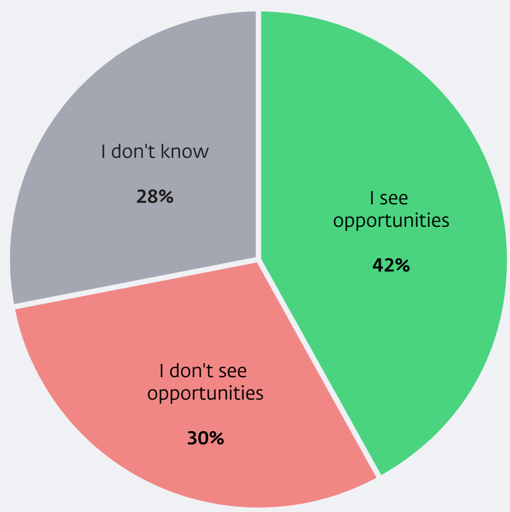
The second most valued feature was resilience to technological disruptions, such as internet outages or failures in payment service providers' IT infrastructure. This feature is particularly relevant to merchants in industries with high transaction volumes, such as supermarkets, street vendors, and fuel and charging stations. A third key attribute was a high degree of customer privacy. These findings suggest that an offline-capable version of the digital euro – provided it meets stringent security standards – could be particularly well-received by merchants.

Figure 7 Security, continuity payments during digital disruptions and privacy most important features of digital euro payments



Approximately 42% of merchants see potential opportunities associated with the digital euro (figure 8). Larger non-food retail chains, such as drugstores and kiosks, are especially optimistic. Among those who do, the most frequently mentioned benefits include enhanced ease of use for consumers and reduced vulnerability to system outages, particularly due to the possibility of offline transactions. This latter point is especially salient in industries characterized by continuous transaction flows, such as supermarkets, street vendors, and fuel and charging stations, and less so in the hospitality and catering industry. In contrast, 30% of retailers see no such opportunities.

Figure 8 Diverging views of digital euro on business opportunities

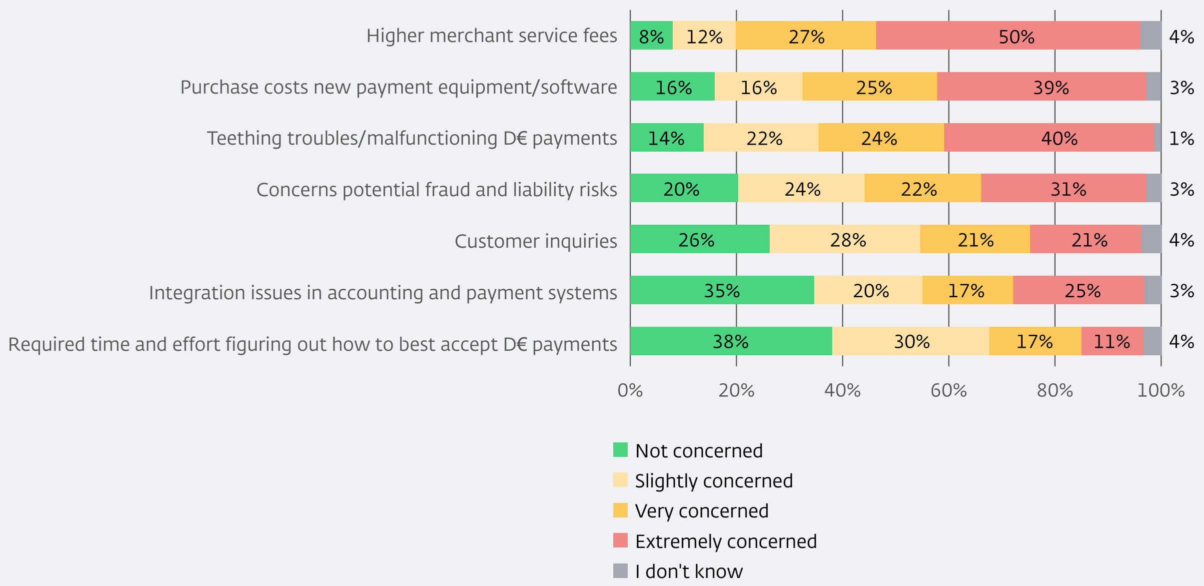


5 Introduction of the digital euro

In this section, Dutch merchants' perspectives on the introduction of the digital euro are explored. Attention is paid to merchants' concerns, the potential impact on their businesses, and their readiness for this new form of currency. Additionally, key measures are presented which merchants consider essential for a smooth introduction of the digital euro in their own company and the support they expect from various stakeholders.

More than 90% of merchants are concerned about one or more bottlenecks in the introduction of the digital euro for their own business. Concerns most mentioned are higher merchant service fees for accepting payments (76%) and additional purchase costs of new payment equipment/software (65%) (figure 9). These cost related concerns are a key point of attention for the Eurosystem and European politicians, who seek broad societal acceptance of the digital euro. Transaction fees for merchants currently vary significantly across the euro area, and Dutch merchants pay relatively low transaction fees for their payment services compared to merchants in other European countries (Junius et al., 2022; KPMG, 2023). Simply introducing a harmonized, uniform fee structure for every merchant in the euro area would mean that Dutch merchants would have to pay more for the new means of payment than they do for comparable existing options. From the perspective of gaining societal support, it is therefore advisable to implement a phased model that gradually harmonizes transaction fees in different countries to uniform transaction fees across the euro area.

Figure 9 Merchants most concerned about costs and integration issues



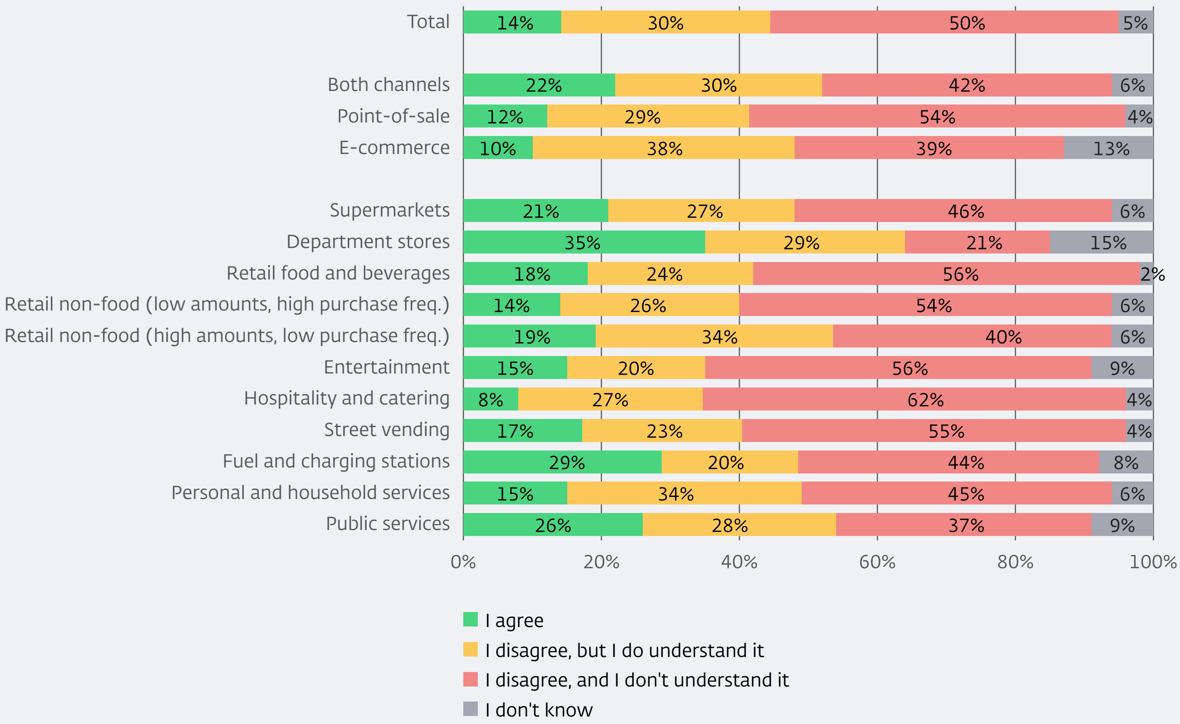
Concerns about possible teething problems and malfunctions in digital euro payments (64%) are also mentioned frequently. A statement from one of the merchants in the qualitative part of this study *"Furthermore, I want it to work properly before it is introduced"* shows that merchants mainly want a smooth introduction, so that they themselves have little to worry about. There is also much concern about liability and fraud (53%). In addition, 42% of merchants say they are (very) concerned about the lack of clarity among customers about how to pay with the digital euro: *"I can imagine the confusion among the elderly, that they can't follow it all very well,"* said a retailer.

Half of the merchants do not agree with mandatory acceptance of the digital euro and do not understand it. Another 30% also disagree with mandatory acceptance, but show understanding, 14% agree with mandatory acceptance and 6% have no opinion (figure 10). The share of merchants who agree with mandatory acceptance is highest among those who sell products both over the counter and online (22%). Resistance is greatest among those who trade exclusively via the counter (54%). Merchants in the hospitality and catering industry, entertainment and food specialty stores in particular are against mandatory acceptance. "Freedom of choice" (61%) and doubts about "the added value of the digital euro" (20%) are mentioned most frequently by who are against mandatory acceptance.

Support for mandatory acceptance is highest among department stores, fuel and charging station stations and in public services, albeit most are not in favour either. Those who agree with mandatory acceptance often state that in case the digital euro has legal tender status, consumers should always be able to pay with it (60%). Many also mention that they believe that merchants should adapt to changing times (35%), that full acceptance is necessary to achieve consumer adoption (21%), and that acceptance obligation is necessary, because otherwise many merchants would refuse digital euro payments (19%).

Merchants would find it helpful if the existing payment infrastructure and systems could be used as much as possible for digital euro payments, so that they do not have to arrange much themselves (85%). Many agree that all parties involved should work together to ensure a smooth implementation (84%). Some give additional advice, such as *"It's more about the cooperation between all parties involved, everyone must contribute to ensure that the introduction runs smoothly."* and: *"You should not develop the digital euro from behind the desk, but let the employees that will use it think along (...)."* They would also like an extensive information campaign to inform and prepare the public and retailers well before the actual introduction (81%). Furthermore, they underline the importance of an extensive testing phase with payment service providers and merchants (84%). However less than half of the merchants are in favour of doing a test run themselves (44%).

Figure 10 Most merchants not in favour of mandatory acceptance digital euro



Most merchants mainly look at their own bank (42%) or payment service provider (21%) for support with preparation. About a third wants support from DNB or the ECB, 24% from the government and 10% mention their own trade association. The auditor/bookkeeper was indicated by 4% of merchants and the company's headquarters by 2% (see table 3). Industries differ in preference. For example, department stores (50%) and supermarkets relatively often want support from their headquarters (33%), while organizations in the public services sector (43%) and entrepreneurs in hospitality and catering (33%) often want support from DNB. The ECB is mentioned relatively often by department stores (12%), food specialty stores (11%) and public service organizations (10%).

Table 3 Organisations that may support merchants in the introduction of the digital euro

In %, multiple replies possible

	Bank	Non-bank payment service provider	Company headquarters	Auditor/ bookkeeper	Trade association	Government	DNB	ECB
Supermarkets	39%	15%	33%	1%	10%	24%	20%	2%
Department stores	45%	18%	50%	0%	2%	21%	25%	12%
Retail food and beverages	43%	24%	3%	2%	9%	19%	25%	11%
Retail non-food (low amounts, high purchase freq.)	33%	29%	6%	5%	7%	20%	29%	8%
Retail non-food (high amounts, low purchase freq.)	44%	31%	2%	3%	10%	26%	31%	6%
Entertainment	37%	25%	2%	2%	7%	17%	27%	5%
Hospitality and catering	38%	16%	0%	2%	5%	18%	33%	5%
Street vending	39%	22%	0%	4%	10%	15%	26%	5%
Fuel and charging stations	39%	17%	11%	2%	21%	17%	30%	5%
Personal and household services	47%	18%	0%	5%	12%	28%	25%	2%
Public services	8%	26%	0%	13%	12%	17%	43%	10%
Total	**42%**	**21%**	**2%**	**4%**	**10%**	**24%**	**28%**	**5%**

6 Concluding remarks

This study provides insights into the perspectives of Dutch merchants regarding the potential introduction of the digital euro as a new digital means of payment. Several key points have emerged from this research.

First, the knowledge of merchants regarding the digital euro is very limited. Although this is not surprising at this stage, it underscores a need for communication and information towards merchants once there is political agreement on the digital euro legislation. This should be done well in advance of its introduction to address any misconceptions and to alleviate concerns. Due to this limited knowledge and lack of experience with the digital euro, respondents had to base their answers on assumptions. This introduces the risk of hypothetical bias, which may not align with their actual behaviour once the product becomes available.

Second, the cost implications of any new means of payment are a critical factor for merchants, this also holds for the digital euro. It is essential that the introduction of the digital euro does not result in higher transaction fees or any other substantial additional costs. This includes cost for exception handling such as fraud and disputes. Ensuring cost neutrality will be crucial in garnering support from retailers.

Third, while the general view of Dutch merchants on the added value of a digital euro is rather sceptical, there is enthusiasm for the offline functionality of the digital euro. A digital means of payment that works during disruptions is seen as very valuable and an addition to the Dutch market.

Finally, the implementation burden on merchants should be minimized. A phased introduction with pilot programs can help identify and resolve potential issues before a full-scale launch. Furthermore, integrating the digital euro into the existing payment infrastructure as seamlessly as possible will reduce the burden on merchants and facilitate a smoother introduction.

Concluding, Dutch merchants are not yet convinced of but open to the digital euro's benefits, especially its offline use. They need assurance that adopting it will be easy, inexpensive, and risk-free. Policymakers must shape the introduction of the digital euro in accordance with these insights to ensure the digital euro is embraced as a welcome innovation. In summary:

1. **Ensure an offline digital euro, as it has the most benefits:** for Dutch merchants, the focus should be on supporting offline functionality, a widely appreciated feature, and ensuring that it is included in the final product.
2. **Strive for cost neutrality:** cost is an important element for merchants in the introduction of the digital euro. Acceptance of the digital euro should not lead to higher transaction fees or other cost increases for merchants.
3. **High degree of safety and fraud prevention are necessities:** a public means of payment should have a high degree of trust. Ensuring sufficient security is important to gain the trust of merchants.
4. **Reduce the implementation burden for merchants:** implement a phased rollout with pilot programs to identify and fix issues before a full launch and integrate the digital euro into existing payment infrastructure as much as possible to reduce the burden on merchants.
5. **Communicate clearly:** provide information well in advance to both merchants and the public before and during the introduction to address misconceptions and alleviate concerns.

References

Bijlsma, M., Van der Cruijsen, C., Jonker, N., & Reijerink, J. (2024), What triggers consumer adoption of Central Bank Digital Currency? *Journal of Financial Services Research* 65, 1-40.

Bundesbank (2024). Bundesbank survey: Widespread acceptance of digital euro among general public.

De Nederlandsche Bank & Dutch Payment Association (2025). Point of sale payments in 2024.

Junius, K., Devigne, L., Honkkila, J., Jonker, N., Kajdi, L., Kimmerl, J., Korella, L., Matos, R., Menzl, N., Prezajkowska, K., Reijerink, J., Rocco, G. & Rusu, C. (2022). ECB Occasional Paper Series no. 294. Costs of retail payments – an overview of recent national studies in Europe.

Kantar (2022). Study on new digital payment methods.

KPMG (2023). Payment transactions in Belgium and Europe: Belgians are particularly well served in terms of the range of services on offer and price. Study commissioned by Febelfin: KPMG study Payment transaction in Belgium and Europe.

Panteia (2024). Kosten van het toonbank-betalingsverkeer. Meetjaar 2023. Zoetermeer.

Rochet, J-C. & Tirole, J. (2003). Platform Competition in Two-Sided Markets, *Journal of the European Economic Association* 1(4). 990–1029.

Loomis, J. (2011). What's to know about hypothetical bias in stated preference valuation studies? *Journal of Economic Surveys* 25(2). 363-370.

Annex

Industries/sectors

Table A1 Industries and sectors within scope of this study

Industry	SBI-codes	Description
Supermarkets	471, excl. 47191	Supermarkets
Department stores	47191	Department stores
Retail food and beverages	472, 47911	Stores specialized in food and beverages, online stores specialized in food and drugstore goods
Retail non-food (low amounts, high purchase frequency)	475, 476, 477 excl. 4752, 4753, 4754, 4759, 4773, 4774, 4775, 47432	Stores selling reading, sports, camping and recreational goods, clothing stores, shoe stores, drugstores, perfumeries, pet stores, etc.
Retail non-food (high amounts, low purchase frequency)	474 ,47432, 4752, 4753, 4754, 4759, 47762	Stores selling consumer electronics, DIY-stores, garden centres, flooring and curtain stores, stores selling electronic household appliances, furniture and lighting stores, etc.
Entertainment	5821, 5914, 602, 90013, 9004, 91, 9311, 949	Amusement and theme parks, arcades, art galleries, cinemas, circus, fairgrounds, museums, sport accommodation and sports clubs, theatres, streaming services, botanic gardens and zoos
Hospitality and catering	55, 56	Beverage/food service establishments, meal and accommodation service establishments
Street vending	478, 47992	Market, street vending
Fuel and charging stations	473	Fuel and charging stations
Personal and household services	432, 4773, 4774, 4775, 4932, 77111, 81221, 81222, 8130, 96	Repair services, car rental, taxis, pharmacists, stores in specialized medical products, charwomen, chimney sweepers, electricians, gardeners, plumbers, window cleaners, funerals, wellness, drycleaning, etc.
Public services	491, 493, 841, 842, 91011, 93111	Public transport, public libraries, public swimming pools, town halls and other pubic services

Questionnaire quantitative part

I Screener

Q1 Are you involved in the decision-making on the means of payment to be used within your organization or establishment?

1. Yes, I am involved in or decisive regarding the means of payment to be accepted **in my organisation**
2. Yes, I am involved in or decisive regarding the means of payment to be accepted **in my establishment**
3. No, I have no role regarding the means of payment to be accepted → end of conversation

Q3 May I note your position?

1. Owner/Director
2. Branch manager, manager
3. Financial manager
4. Administrative assistant
5. Otherwise, namely .... (open)

Q4 In which industry/sector is your company/ organization active? (single response)

1. Supermarkets
2. Department stores
3. Retail food
4. Retail non-food (low amounts, high purchase freq.)
5. Retail non-food (high amounts, low purchase freq.)
6. Entertainment (including cinema, theatre, museums, amusement parks and zoos, gaming, hobby and sports clubs)
7. Catering and hospitality
8. Street sales
9. Petrol and charging station stations
10. Private services (including care, wellness, pharmacy, maintenance, taxis, rental companies)
11. Public services (including municipal counters, libraries, public transport, swimming pools)

Q5 What year did your company start?

Q6 What best describes your company's organization?

1. This is an independent company consisting of only 1 branch
2. We are the head office, the branch offices are all or partly franchise organizations
3. We are the head office, the branch offices are owned by us (so no franchise)
4. This is part of a larger company, and we are a franchisee
5. This is part of a larger company, and we are employed by this larger company (so not a franchisee)
6. Otherwise, namely ....

Q7 In which region does your company operate?

1. Northern Netherlands
2. West-Nederland (incl. Randstad)
3. East Netherlands
4. South Netherlands
5. Rural
6. In the Netherlands and abroad

a. Your location
b. Your organisation

Q8 What best describes the location of your company/organization?

1. City
2. Medium-sized city
3. Small town
4. Village
5. Rural

Q9 How many branches does your organization consist of in the Netherlands (approximately)?

Q10 How many employees does your organisation have in the Netherlands (approximately)?
(not the establishment but the organization)
1. 1-9 employees
2. 10 – 49 employees
3. 50 – 99 employees
4. 100 – 999 employees
5. 1000 employees and more

II Current payment practice in the company

Q11a What does your clientele look like in terms of age structure?
1. They are mainly young people and young adults up to about 30 years of age
2. They are mainly people between 30-60 years old
3. They are mainly elderly people, aged 60 and older
4. Very mixed age structure from young to old
5. I don't know

Q11b What does your clientele look like in terms of gender?
1. Mainly men
2. More men than women
3. About the same number of men and women
4. More women than men
5. Mainly women

-8. I don't know

Q12a What sales channels does your company use? (multiple responses)
1. Physical points-of-sale (i.e. in the store/ company where you can pay in cash or by card)
2. Online sales

In case Q12a=1 and 2

Q12b How important are the channels of sale and online for your company's revenue?
1. Almost all of my company's turnover comes from physical sales (>=80% physical)
2. Most of my company's turnover comes from physical sales, but we also have a substantial turnover through online sales
3. They are about equally important
4. Most of my company's turnover comes from online sales, but we also have a substantial turnover through physical sales
5. Almost all of my company's turnover comes from online sales (< 20% physical)

Point-of-sale channel

Q13a What means of payment do you accept from your customers for point-of-sale payments? (multiple responses)
1. Cash
2. Debit card payment
3. Credit card payments
4. Gift cards
5. iDEAL payments (payment with QR code via smartphone)
6. Other means of payment, namely .... (open)

In case Q13a=2,3 go to Q13b, otherwise go to Q14

Q13b How did you acquire your payment terminal?
1. Purchase
2. Rent or lease
3. Both
4. Other, namely .... (open)

Q13c When is your payment terminal scheduled to be replaced?

1. I want to hold on to the existing terminal for as long as possible
2. Within now and 3 years
3. Somewhere between 3 and 6 years
4. This is done automatically if the terminal supplier/lessor offers it
5. This differs per terminal

-8. I don't know

We would like to know your experiences or perceptions for payments at the counter.

Q14 How do you experience the transaction fees per payment at the cash counter and debit card, on a scale of 1 to 6, where 1 is very low and 6 is very high?
(This refers to the fees that your business pays to other businesses in the payment chain, which is related to the total number or value of accepted payments. This can include transaction rates, the amount for a monthly payment bundle and cash deposit rates)

A. Cost perception cash
B. Cost perception debit card

Q15 How do you experience the reliability (insensitivity to failure) of cash and debit cards during the execution of payments at the counter, on a scale of 1 to 6, where 1 is very low and 6 is very high?
(By reliability of cash we mean the transaction of the payment with cash itself. The main thing is that it works well and without hitches. We don't mean the security and susceptibility to fraud (counterfeit money, etc.))

A. Reliability perception cash
B. Reliability perception debit card

Online payment channel

Q16 What means of payment do you accept from your customers for orders/purchases made online? (multiple responses)

1. iDEAL-payments
2. Creditcard
3. PayPal
4. Credit transfer
5. Apple Pay
6. Google Pay
7. Klarna
8. Afterpay/Riverty
9. Direct debit
10. Otherwise, i.e.

Q17 How do you experience the transaction costs per payment with iDEAL and credit card in the online sales channel, on a scale of 1 to 6, where 1 is very low and 6 is very high?
(This are the fees that your business pays to other PSPs in the payment chain for accepting the payment. It can be transaction rates, or the amount for a payment bundle.)

A. Cost perception iDEAL
B. Cost perception creditcard

Q18 How do you experience the reliability (insensitivity to failure) of payments with iDEAL and credit card during the execution of payments in the online sales channel, on a scale of 1 to 6, where 1 is very low and 6 is very high?

A. Reliability perception iDEAL
B. Reliability perception Creditcard

III Fees

Point-of-sale payments

Q19a To what extent is the following statement correct for you?
I know approximately what my company/organization pays per transaction for processing a transaction at the counter.
1. Agree
2. Disagree

If Q19a=1 go to Q19b, otherwise go to Q20a

Q19b What is the approximate (average) fee per transaction in eurocents?
……….. eurocent
-8. I don't know
-9. I'm not saying that

Respondents are randomly assigned to Situation A or B, and subsequently randomly assigned to 1 of the 5 scenarios.

Situation 1A fees
Suppose there is a new means of payment, with which **1 in 10 customers** at the counter would prefer to pay. The rates of this new means of payment are (assignment at random: 1: 25% lower than, 2:10% lower than, 3: equal, 4: 10% higher than,5: 25% higher than) the average rates per payment with the current means of payment at the counter that you now accept from your customers.

Situation 1B fees
Suppose there is a new means of payment, with which **1 in 2 customers** at the counter would prefer to pay. The rates of this new means of payment are (assignment at random 1: 25% lower than, 2:10% lower than, 3: equal, 4: 10% higher than, 5: 25% higher than) the average rates per payment with the current means of payment at the counter that you now accept from your customers.

Q20a Which answer is most appropriate for you (and your organization)?
1. I DO want to accept this new means of means of payment
2. I MAY want to accept this new means of payment
3. I do NOT want to accept this new means of payment

In case Q20a=1 go to Q20c, otherwise go to Q20b

Q20b What added value should the new means of payment offer so that your organization would be willing to accept it?
1. If many customers want to pay with it
2. If it also works in the event of a malfunction of my current means of payment
3. If it is less sensitive to fraud or cybercrime than my current means of payment
4. If more foreign customers can also pay electronically with me
5. If everyone can then easily pay electronically with me (even customers who now have trouble with that)
6. If I have my money directly in my account
7. Another added value, namely ……..
-8. I do not want to accept a new means of payment under any circumstances

In case Q12=2 go to Q21a, otherwise go to Q24a

Q20c Which feature of a new means of payment at the counter does your organization consider most important?

1. If many customers want to pay with it
2. If it also works in the event of a malfunction of my current means of payment
3. If it is less sensitive to fraud or cybercrime than my current means of payment
4. If more foreign customers can also pay electronically with me
5. If everyone can then easily pay electronically with me (even the customers who now have trouble with that)
6. If I have my money directly in my account
7. Another added value, namely ....

In case Q12=2, go to Q21a, otherwise go to Q24a

Online payment channel

Q21a To what extent is the following statement correct for you?
I know approximately what my company/ organization pays per sale transaction for the processing of an online transaction.

1. Agree
2. Disagree

In case Q21a=1 go to Q21b, otherwise go to Q22a

Q21b What is the approximate fee per online transaction in eurocents?
.... eurocents
-8. I don't know
-9. I'm not saying that

Q22a If your customer has several new options for paying online, would you like to direct your customers to the means of payment you prefer?

1. Yes
2. No

Q22b Are the transaction fees for a means of payment a reason to switch payment service provider that accept payments for you, when another payment service provider offers it cheaper?

1. Yes
2. No
3. Maybe

Q22c Has your business or organization switched payment providers in the last 7 years because of the fees it charged your business to accept payments?

1. Yes
2. No

-8. I don't know

Respondents are randomly assigned to Situation 1 or 2, and subsequently to 1 of the 5 scenarios.

Situation 2a Fees
Suppose there is a new means of payment, with which 1 in 10 customers using your online payment channel would prefer to pay. The rates of this new means of payment are (assignment at random: 25% lower than, 10% lower than, equal, 10% higher than or 25% higher than) the average rates per payment with the current means of payment that you now accept from your customers in the online payment channel.

Situation 2B fees
Suppose there is a new means of payment, with which 1 in 2 customers using your online payment channel would prefer to pay. The rates of this new means of payment are (assignment at random: 25% lower than, 10% lower than, equal, 10% higher than or 25% higher than) the average rates per payment with the current means of payment that you now accept from your customers in the online payment channel.

Q23a Which answer is most appropriate for you (and your organisation)?

1. I DO want to accept this new means of payment
2. I MAY want to accept this new means of payment
3. I do NOT want to accept this new means of payment

In case Q23a=1 go to Q23c, otherwise go to Q23b

Q23b What added value should the new means of payment offer so that your company or organisation would be willing to accept it?

1. If many customers want to pay with it
2. If it also works in the event of a malfunction of my current means of payment
3. If this means of payment is less susceptible to fraud or cybercrime than my current means of payment
4. If more foreign customers can also pay digitally with me
5. If everyone can easily pay electronically with this (even those who have difficulty with it now)
6. If I have my money directly in my account
7. Others, namely
8. I do not want to accept a new means of payment under any circumstances

Go to Q24a

Q23c Which feature of a new means of payment in the online sales channel does your organization consider most important? (single response)

1. If many customers want to pay with it
2. If it also works in the event of a malfunction of my current means of payment
3. If this means of payment is less susceptible to fraud or cybercrime than my current means of payment
4. If more foreign customers can also pay digitally with me
5. If everyone can easily pay electronically with this (even those who have difficulty with it now)
6. If I have my money directly in my account
7. Low fees
8. Other, namely ....

IV Digital Euro

Q24a Central banks are developing a digital version of cash: the digital euro. Are you familiar with the digital euro?

1. I am very familiar with the digital euro
2. I have heard of the digital euro, but I am not sure what is meant by it
3. I am not familiar with the digital euro

In case Q24a=1,2 go to Q24b, otherwise go to NOTE 2

Q24b What do you know about the digital euro, can you tell us something about it?

* *open answer, maximum 100 words*

Note

The digital euro is a new means of payment, like cash issued by the ECB, that allows all Europeans to pay to each other, online or in a shop. Just like with the current means of payment, they use their mobile phone or a bank card. It is an addition to the existing means of payment.

We now present some of the possible features of the digital euro.

Q25 On a scale of 1 to 4, could you indicate how important these features are to make the digital euro attractive as a means of payment for your company/organisation?

1. Not important at all
2. Not important
3. A little important
4. Very important

-8. I don't know

a. Many customers want to pay with the digital euro
b. The digital euro is easy to use, even for customers who are not digitally literate
c. Foreign customers can easily pay with the digital euro
d. The arrival of the digital euro will increase competition between providers of different means of payment
e. Digital euro payments are credited directly to the company's account
f. Digital euro payments in the store are very fast
g. Digital euro payments are secure
h. Digital euro payments can also continue if there are failures on the internet or in the ICT systems of payment service providers
i. Digital euro payments offer customers a high degree of privacy

Note

Imagine that in a few years' time, the digital euro will be introduced as a means of payment in the euro area. I would like to briefly explain how it would work.

Physical point of sale

At physical locations such as at the cash register or payment terminal, consumers can pay contactless (NFC) or via QR codes. This can be done with a debit card or a smartphone or a smartwatch. A consumer will also be able to pay with the offline digital euro. This means that payment can also be made in the event of an ICT or internet failure.

Online payment channel

For online orders, customers can pay by scanning a QR code or clicking on a payment button, but also by bank transfer.

We would now like to ask you a few questions about the opportunities and risks you foresee for your own company/organisation

Q26a As a merchant, do you see opportunities if your customers would like to pay with digital euros?

1. I see opportunities
2. I don't see any opportunities
3. I don't know

In case Q26A=1, go to Q26B, otherwise, go to Q26C

Q26b What opportunities do you see?

(multiple response, maximum 3 options)

1. More sales
2. Lower costs for my business
3. More ease of use for my customers
4. Customers who are not digitally skilled can also easily pay with the digital euro
5. Foreign customers can easily pay with the digital euro
6. Direct crediting of digital euro payments to the company's account
7. Faster payment process

8. Safer shopping environment due to lower cash use
9. Less troubles due to malfunctions, digital euro payments can also continue offline in the event of failures on the internet or in the ICT systems of payment service providers
10. More privacy for customers
11. Other opportunities, namely ....

Q26c Why don't you see opportunities? (multiple response, maximum 3 options)

1. I don't see any added value compared to existing means of payment
2. My customers don't want to pay with the digital euro
3. In my industry, customers pay high amounts, which (often) cannot be paid with the digital euro
4. I don't see any opportunities for additional revenue
5. Due to the high implementation costs
6. It is still too unclear to me how the digital euro will work and what its properties will be
7. Other reason, namely .... (open)

We now list several possible concerns and bottle-necks that your company/organization could have with the introduction of the digital euro.

Q27 On a scale of 1 to 4, could you indicate the extent to which you expect these concerns or bottlenecks to exist or could occur in your company/organisation?

1. Not concerned
2. Slightly concerned
3. Very concerned
4. Extremely concerned

-8. Don't know

a. The time and effort it will take to figure out how best to accept digital euro payments
b. Lack of clarity among customers about how to pay with digital euros
c. Costs of purchasing new payment equipment/ software in the business
d. Higher fees for accepting payments
e. Teething troubles/failures in accepting and processing payments
f. Concerns about potential fraud and liability
g. Problems with integrating digital euro payments into existing accounting and payment systems

V Introduction of the digital euro

There is talk that retailers who accept digital payments will be obliged to also accept payments with digital euros. The digital euro would then become legal tender, just like cash is now.

Q28a How would you feel if all shops and organisations were obliged to accept payments in digital euros? (single response)

1. I agree
2. I don't agree with that, but I do understand it.
3. I don't agree with that, and I don't understand it

-8. I don't know

Q28b Why do you think that?
[spontaneous reactions, ex-post categorization responses, multiple responses possible)

1. Full acceptance is needed, otherwise customers will not pay with it
2. If the digital euro is legal tender, then customers should also be able to pay with it
3. Mandatory acceptance is necessary, otherwise many entrepreneurs will not accept it
4. As an entrepreneur, you must keep up with the times

5. As an entrepreneur, you must have freedom of choice
6. In the case of an obligation, the benefits must clearly outweigh the costs, and I don't see that now
7. I don't see any added value in the digital euro compared to existing means of payment
8. Obligation does not seem necessary to me, if customer demand is high, acceptance will follow automatically
9. Otherwise, namely ....

Various measures can be taken to help businesses prepare for the arrival of the digital euro.

Q29 On a scale of 1 – 4, can you indicate how helpful the following measures would be to really help your business prepare for the arrival of a digital euro?

1. Not helpful
2. A little helpful
3. Very helpful
4. Extremely helpful

-8. Don't know

a. Good and timely public campaign on the digital euro to explain its arrival to citizens
b. Good and timely information for my company on what my company needs to do to be able to accept digital euro payments
c. Good integration of digital euro payments in my current payment equipment/system so that I don't have to arrange much myself
d. An extensive test phase in which payment service providers and merchants can participate to detect teething problems
e. Cooperation between all parties involved to ensure a smooth implementation
f. That my company can already test run itself, prior to the actual introduction of the digital euro

Q30 From which party or agency would you like to receive this help in the preparation?
[spontaneous reactions, ex-post categorisation responses, multiple responses possible)

1. My bank
2. My (non-bank) payment service provider
3. The head office of my company
4. My trade association
5. Government
6. De Nederlandsche Bank
7. Other, namely .... (open)

We are now almost at the end of this conversation.

Q31 Could you now describe in a few words what feelings or thoughts come to mind when you see the digital euro?

Q32 Finally, are there any questions that you missed during this conversation? Do you have any tips, wishes or concerns that you would like to pass on to the Dutch Central Bank that have not yet been discussed?

De Nederlandsche Bank N.V.
PO Box 98, 1000 AB Amsterdam
The Netherlands
+31 (0) 20 524 91 11
dnb.nl/en

Follow us on:
Instagram
LinkedIn
X

DeNederlandscheBank
EUROSYSTEEM