

Éva Divéki: Card or print? How to issue cafeteria vouchers electronically?*

Recently, there have been several government initiatives pointing to the electronisation of the voucher market, some of which have already reached the phase of implementation. In the interests of implementation at the society level which is efficient from technical as well as 'business' points of view, the most important principle related to the domestic voucher infrastructure is that it should operate electronically. Vouchers need to be accepted in the already operating bank card infrastructure (and/or with its expansion) in such a manner that the system should allow the participation of private service providers (issuers, acquirers) which compete against one another. The motive of writing this article was that the voucher market underwent a significant modification this year, due to changes in the relevant tax allowances. The modification process points in the direction of electronisation, but considerable advantages could be achieved by further electronisation in the case of the still paper-based, state-supported voucher market segment as well.

THE SIZE AND IMPORTANCE OF THE VOUCHER MARKET IN HUNGARY

Recently, various Hungarian local government and government circles have placed an increasing emphasis on ideas for the (central or local) planning of the voucher market and the social card scheme (which may even be considered as an element of this market). Some of these initiatives have already reached the phase of implementation and operation. The growth of the voucher market is an international phenomenon, which is reflected by the obvious attention paid to this market segment by leading card companies and the banks cooperating with them.¹

In 2012, the Hungarian voucher market changed considerably due to the modification of the extent of tax allowances that motivate the issuance of vouchers. The voucher market segments that achieved a high turnover were able to attain their market size due to the tax allowances granted by the government to employers in relation to fringe benefits. If we take into consideration that a social card scheme (presumably also appearing in the form a voucher) may also attain a significant market size due to government regulation, we may come to the conclusion that the main 'sponsor' of the voucher market in Hungary is the Hungarian

state, through the tax allowances granted or the regulation created by it.

Government ideas regarding the changing of vouchers were revealed during 2011. Last year, there were several government initiatives for the electronisation of the market of paper-based vouchers. One of the examples already implemented is the Széchenyi Recreation Card (SZÉP Card)², an electronic voucher card initially created to replace the paper-based travel voucher. At present, the Erzsébet voucher is paper-based, but Decree No. 39/2011. KIM of the Minister of Public Administration and Justice on the Issuance of the Erzsébet Voucher allows the issuance of the voucher in electronic format as well. The idea of transferring the amounts of social benefits to a social card instead of cash payment has also arisen (e.g. it is in the implementation phase in the 1st District in Budapest); there are several international examples for this approach as well (e.g. Slovakia, USA).

Electronic vouchers have become the most widespread in the case of health care cards. The common feature of these solutions is that these cards are accepted by merchants on the existing POS terminal³ infrastructure for bank cards. The SZÉP Card works in a similar manner, with banks in the background.

* The views expressed in this article are those of the author(s) and do not necessarily reflect the official view of the Magyar Nemzeti Bank.

¹ In the terminology of international card companies and card issuing banks, the market segment of vouchers is classified in the category of so-called 'pre-paid' cards, i.e. these types of cards are offered as products for the voucher type solutions.

² For the structure of the SZÉP Card, see the chapter entitled 'Evaluation of the current system of the SZÉP Card in light of the above fundamental principles'.

³ POS (point of sale terminal): electronically operating bank card accepting terminal.

Precise data on the size of the domestic voucher market are not available for us; the size of the market (based on the annual turnover, excluding secondary market transactions) is estimated to have been between HUF 100 and 300 billion. In the past, food vouchers and travel vouchers constituted the segment with the highest turnover; both were paper-based.

This article outlines the fundamental principles that are important to consider for implementation of the issuance of vouchers at the society level, which is efficient from technical as well as 'business' point of view.

The article does not intend to discuss the social policy issues as to whether there should be state-supported forms of consumption and relevant types of vouchers. However, if the economic policy decision is that they should exist, it is important that the social efficiency of their use be as high as possible.

The most important aspect related to the domestic voucher infrastructure is that it should be operated electronically, allowing the acceptance of vouchers on the already operating bank card infrastructure (or with its expansion) in such a manner that the system allows the participation of private service providers (issuers, acquirers) which compete against one another.

CONSIDERABLE EFFICIENCY IMPROVEMENT LIES IN THE ELECTRONISATION OF VOUCHERS

Paper-based vouchers have many disadvantages, most of which can be significantly reduced by the use of electronic vouchers. There is considerable potential to boost efficiency via the electronisation of the voucher market.

The disadvantages and long-term costs of paper vouchers are significant:

- Their processing cost is high; similarly to cash, vouchers need to be produced, transported, sorted, counted, stored and destroyed.
- Upon shopping, voucher holders face the problem of denominations due to the fixed denomination structure and the lack/prohibition of giving back any change. Therefore, during payment transactions cash needs to be added to the vouchers in most cases. This denomination problem increases the length of the payment process as well, and may even result in the failure of the transaction due to lack of the necessary cash. A similar problem is

that in the case of small denominations it may take a long time to count the amount of vouchers required for the payment.

- The secondary market of paper vouchers (which does not comply with the primary objective in the case of cafeteria vouchers) cannot be controlled, and may grow to considerable size. For example, according to anecdotal information, in many cases a part of the voucher turnover accepted by smaller merchants appeared in hypermarkets, i.e. retailers that had accepted the vouchers bought goods in exchange for them in store chains.
- Selling paper-based vouchers at a discounted value or exchanging them for cash may also be considerable. Consequently, the social objective intended to be achieved also becomes affected. They are not used to buy what they were intended for.
- The social aspect is also affected if the voucher is used for purchasing something that does not correspond to the objective; for example, food vouchers are used for buying a vacuum cleaner in a shop that sells food as well as consumer durables. In the case of paper vouchers it is much more difficult (almost impossible) to check and monitor this.
- The purchase and redemption fees of paper vouchers may also be high.
- It is much easier to commit the crimes of counterfeiting and fraud with paper vouchers.

Electronisation of the voucher market would entail a number of positive effects and would result in a major improvement in efficiency:

- Processing costs decline considerably; performing many of the activities listed above in connection with the paper-based vouchers becomes unnecessary.
- There are no denomination problems. Everybody pays as much as needed using electronic vouchers, i.e. the amount due for the given product/service. There is no need to add cash to the amount to be paid; the transaction does not fail because of this. As a result, the payment process may be faster.
- There is no secondary market, as transactions may clearly be traced back in the electronic system; it is not possible to sell the electronic voucher for cash at a discounted rate, and only the beneficiary can use it.

- It is easier to ensure that the voucher is used for the actual purpose.
- The traceability of electronic transactions contributes to the whitening of the turnover in the sectors concerned and makes the turnover transparent for the state.
- Electronisation may increase the safety of voucher issuance; by this – depending on the purpose – it is possible to terminate the limited expiry or the expiry date may be extended considerably.

PRINCIPLES IN THE ELECTRONISATION OF VOUCHERS

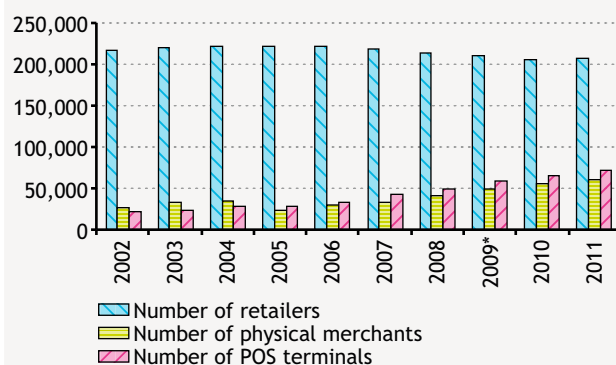
To be able to exploit the aforementioned advantages in the electronisation of vouchers, it is expedient to take into account certain principles when carrying out this task. Although making the vouchers electronic may result in a significant improvement in efficiency, much depends on how the electronisation is implemented in practice. Therefore, the next part describes the principles that need to be taken into account in order to achieve the greatest possible improvement in terms of social efficiency.

It is practical to use the existing bank card infrastructure and standards

For the acceptance of electronic vouchers it is expedient to use the already existing POS infrastructure that is also used for bank cards, and it is expedient to implement the electronisation by expanding this infrastructure. All of this does not mean that the electronisation of vouchers has to take place in line with the business interests of credit institutions. It only means that it is expedient to apply the same standards and devices for the acceptance of electronic vouchers that are used for bank cards, because without this the synergies stemming from the development of the two kinds of markets would be lost.

Similarly to health care cards, the spread of electronic vouchers could facilitate an increase in the number of payments by bank cards as well, because electronisation may contribute to the accelerated installation of the POS network which also accepts bank cards, i.e. POS terminals could also be installed at places where there have not been yet before. Accordingly, a voucher solution using the existing POS infrastructure of banks is the most efficient choice, as it does not require the creation and installation of a new, parallel POS terminal and central clearing infrastructure.

Chart 1
Changes in the numbers of retailers and physical merchant outlets that accept bank cards and POS terminals, 2002–2011



* Data for 2009 are partly based on estimation as 2009 data are not available on the website of the CSO.
Sources: CSO, MNB statistics.

Chart 1 shows the changes in the number of retailers on the basis of CSO data as well as the changes in the numbers of merchant outlets accepting cards and POS terminals based on data of the MNB. It is distinctly visible in the chart that the number of merchant outlets is increasing steadily, and their number exceeded 60,000 in the second half of 2011, in spite of the decline in the number of retailers for a considerable part of the period.

The acceptance of vouchers installed on bank cards would require additional investment only of those part of retailers that currently do not have a POS terminal. All of this may also result in a major expansion of the bank card acquiring network. It is important to note that as it would be the same infrastructure that serves payments by bank card and electronic vouchers, the dynamics of the two markets may add up from the aspect of the expansion of the network.

The bank card infrastructure does not limit the scope of potential issuers, acquirers and participants to banks, as it has been accessible for any payment service provider (other financial institutions, the post, payment institutions and even the Hungarian State Treasury) since the implementation of the EU Payment Services Directive in Hungary.

In addition, through the reduction of the social costs of payments⁴ the widespread use of electronic payments may be considered as a step in the direction of social welfare. Considerable savings could be reached at the level of the society as well with a complete change-over to electronic payments. Moreover, thanks to the traceability of transactions and the reduction of the use of cash, the

⁴ Turján et al. (2011).

spread of electronic payments could greatly contribute to the whitening of the economy.

Fees as well as contract terms and conditions controlled by the state

The reason for issuing vouchers supported with tax allowances is to achieve some social policy objective. Accordingly, vouchers may also be considered as 'earmarked money', which is utilised best if it is used efficiently and appropriately.

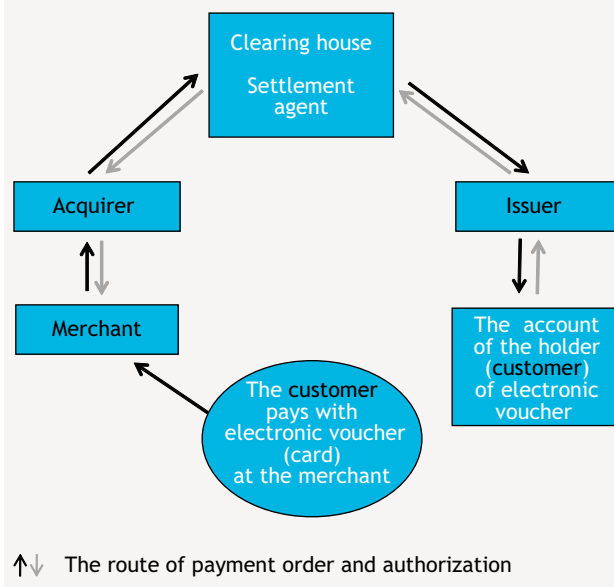
In order to achieve the intended social policy objectives, it would also be necessary to implement strong state control over the pricing and contract terms and conditions of the market services related to the voucher in the case of vouchers issued or supported by the state. It is necessary to avoid the situation when the state assigns one given service provider (e.g. a single bank) to organise the issuance and acceptance of the electronic vouchers, thus creating a monopolistic position for the service provider and allowing it to establish the fees charged for the services as well as the contract terms and conditions at its own discretion. Both issuance and acceptance should be organised by several service providers, which compete with one another.

The relevant contract terms and conditions as well as the pricing circumstances related to the voucher should be determined by the state in a competition-neutral manner, and the state should insist on compliance. It is important to emphasise that state control of all the fees charged in the system is necessary, or at least the state should establish the maximum extent of the fees.

A four-point system must be developed

The voucher acquiring system must be an open, four-point system. A 'four-point system' means that the system of acceptance (i.e. the acquirer) is independent of the issuer in the sense that the institution (issuer) that is in contact with the holder of the electronic voucher card (customer) does not have to be the same institution as the one that connects the customer into the system and is in contact with the merchant that accepts the voucher. (Chart 2 shows the four points of the system: customer, merchant, issuer and acquirer.) Of course, there are other participants as well in the case of electronic vouchers: employers that buy the electronic vouchers for their employees, issuers' contracted

Chart 2
Simplified chart of the four-point system



partners (not shown in Chart 2) as well as clearing and settlement institutions (which are presented in the chart).

Acquirers and issuers are linked by the pre-determined and common rules of the system. Openness means that any institution meeting the criteria determined by the system (fees, access criteria, minimum service level, etc.) can be an acquirer or issuer.

It is an important aspect that acquiring merchants should not be forced to enter into contracts with each issuer separately regarding the acceptance of the electronic voucher cards. The owner of the system itself should be the state, i.e. the system 'should not be sold' to a profit-oriented service provider. This means that all decisions regarding the rules of and fees for the use of the system as well as the access can only be taken by the state in a competition-neutral manner. However, it does not mean that technical services cannot be outsourced. However, with the outsourcing of the technical types of services the market must not fall into the hands of a monopolistic service provider. This four-point model allows efficiency increasing competition among service providers both on the acquirers' and issuers' sides.

At present (as of 2011), there are 27 issuing and 10 acquiring institutions in Hungary in the bank card network, which means the networks of the two international card companies (VISA and MasterCard).⁵

⁵ The networks of the international card companies mean that they control the rules of operation of their respective networks and the fees to be paid by the payment service provider (e.g. interchange fee, card membership fees), but the physical infrastructure is not owned by them, but rather by the payment service providers joined to them. These payment service providers typically use the same own infrastructure for the processing of the transactions cleared in both the VISA and the MasterCard networks. The use of this physical infrastructure for a third or fourth purpose is not controlled by the international card companies, and they cannot prevent it.

The interchange fee must be very low

It is not necessary to charge any interchange fee for the electronic vouchers, or a very low fee should be set. The interchange fee is the fee paid by the acquirer's bank to the issuer's bank upon the acceptance of the card. (It is not the same as the merchant fee, which latter is paid by the merchant to his own bank, the acquiring bank upon the acceptance of the card.) Basically, the interchange fee distorts competition on both sides. The objective would be that both the issuer side and the acquirer side should pay for the services used by each of them in a clear, transparent manner. In two-sided markets like this one, while the more intensive development of one side or the other can be influenced with pricing that is independent of the distribution of the costs of the two sides, it does not necessarily result in a cost-effective utilisation of resources.

Experiences of international card companies can be used

In the electronisation of vouchers, the experiences of international card companies gained in the designing and clearing of card systems may be needed, and it is expedient to use the same standards that are used in the case of bank cards. However, it does not necessarily mean that an international card company should be the owner of the system or that any of these companies should really involved in the elaboration of the rules of the voucher systems.

Fees and rules must be published in a transparent manner

The fees regarding the electronic vouchers should be transparent and publicly available in the case of the acquirers as well as the issuers. Therefore, similarly to the provisions in the regulations on payment services, the issuer should inform its partners about the changing of its terms and conditions 60 days before entry into force. By this, its partners must be given the opportunity to become aware of the amendment in due time, allowing them in the case of any unfavourable modification to terminate their respective contracts and enter into agreement with another service provider if necessary. The notification to contracted partners should be in written form (e.g. letter or e-mail), whereas non-contracted partners should be informed in national or regional journals and electronically, through the Internet.

An on-line registration and authorisation system is more favourable in the long term

An electronic voucher system implemented on the basis of the bank card acquiring infrastructure may follow two basic models in terms of the authorisation of payment transactions and the registration of vouchers.

It can be based on on-line authorisation, similarly to debit cards, when the value of the voucher is stored in the central database (account management system) of the issuer, and in each case the payment transaction is authorised on the basis of communication with this system (if there is any available balance, updating of the balance, guaranteeing the crediting of the given amount of voucher to the merchant's account).

There are also international examples of voucher systems based on an off-line solution. In this case, there is no central authorisation or approval; the voucher balance is stored in the card itself. This does not require communication with the issuer; therefore, the payment transaction may be faster and implementation of the solution is also simpler. However, serious disadvantages of the off-line solution are the higher exposure to misuse and fraud⁶ as well as the fact that if the card holder who owns the vouchers loses the card, he loses the vouchers as well, because cancellation is not possible in this system.

Overall, although initial implementation is more costly, over the longer term it is worth choosing on-line solutions, because the system is much more convenient and easier to control from the aspects of the issuer, the regulator and the holder of the voucher alike. In terms of costs, the difference between the two forms of implementation is diminishing with the steady decline in telecommunications and IT costs.⁷

EVALUATION OF THE CURRENT SYSTEM OF THE SZÉP CARD IN LIGHT OF THE ABOVE PRINCIPLES

The SZÉP Card was introduced in the market of cafeteria vouchers as a result of government measures. The undisguised intention of the government is to make the SZÉP Card the market-leading voucher system. The system, which originally aimed at replacing the travel voucher, is suitable for serving any other cafeteria elements electronically.

⁶ Just think of the phone card counterfeiting in the early 1990s.

⁷ With an objective to serve voucher markets, international card companies and even mobile phone companies offer so-called 'pre-paid' solutions. It is worth to know of them that although earlier the name 'pre-paid' was used for the off-line e-wallets (classical e-money model), the solutions of card companies and mobile phone companies already postulate an on-line solution with central authorisation in this segment as well. Typically, these solutions are different from the classical debit card systems only in the loading and redemption procedures.

The SZÉP Card structure

The SZÉP Card is an electronic voucher card that can be issued by banks that meet the relevant criteria; it can be used through traditional POS terminals, and authorisation/acceptance is also possible through telephone or the Internet. Pursuant to the government decree that regulates the SZÉP Card⁸ (hereinafter: Government Decree), the Card can be issued by several banks that meet the criteria. The Government Decree also stipulates several criteria for becoming an issuer, but in the current domestic market these criteria may actually be met by some medium-sized or large banks only: at least 100,000 previously issued bank cards are required, a branch in each town or village with more than 35,000 inhabitants, at least two years of experience in the issuance of electronic vouchers and more than 25,000 voucher cards issued. As we were informed, OTP, K&H and MKB registered as issuers.

The conceptual importance of the SZÉP Card is that the paper-based travel voucher is replaced by an electronic scheme that functions with much lower costs on both the merchant's and the employer's side, in such a manner that the existing physical bank card terminals (and the bank infrastructure behind them) can be used to operate the system.

The scope of use of the voucher card is determined by the Government Decree in an itemised manner on the basis of the NACE: this scope covers accommodation services and cultural entertainment (museum, theatre, zoo), sports activities, health care or other recreational activities in a relatively wide sense; meals are included if they are served in a restaurant or are related to accommodation services directly. In practice, it should be imagined as various 'pockets', i.e. subaccounts, belonging to the SZÉP Card, which allows the separate use of each of them. The maximum amount of grant that can be transferred to the catering 'pocket' is HUF 150,000, whereas HUF 75,000 and HUF 225,000 can be transferred to the recreation and accommodation services parts, respectively.

Pursuant to the Government Decree, the fees of the SZÉP Card are much lower than the fees typical of the existing paper vouchers. Namely, the issuer of the SZÉP Card can charge a fee only on one side, i.e. the merchant's side, and not more than 1.5 per cent. The employer and the employee do not pay anything at all directly. This fee is significantly lower compared to paper vouchers, where a fee of 3-5 per cent may exist on both sides (the employer that buys the voucher for its employees and the merchant that accepts the voucher); consequently the total fee burden may reach as much as 10 per cent.

In light of the principles presented in the above section, in the following we present an analysis of how efficiently the current system of the SZÉP Card is able to achieve the set targets:

- It can be considered a positive solution that the SZÉP Card also uses the bank infrastructure, because this allows for cost reduction, efficiency increase and a minimisation of investment requirements. Accordingly, the opportunities stemming from the synergies of the two markets (the bank card and the electronic voucher markets) can be used.
- It is also advantageous that the system was designed using state control. Pricing conditions were determined in a government decree, defining a maximum percentage for the prices.
- In legal terms, there are three players in the current system of the SZÉP Card. This means that independent issuer and acquirer sides are not clearly established; the

Decree mainly mentions the issuer. By this it suggests that the SZÉP Card may only be acceptable in the given issuer's network (on its acquiring devices). On the acquirer side only one sentence of the Government Decree points to the fact that the acceptance is also open. 'The institution (...) shall design the voucher acquiring system in a way that it should be accessible through its own terminal as well as electronic terminals operated by other business entities.'⁹ The legal effect of the sentence quoted above is a matter of interpretation, and the exact situation is also uncertain because there is a direct contract between the issuer and the acquiring merchant in any case, which, in turn, legally does not point to a classical four-point model but rather to a three-point one (where the issuer is the acquirer at the same time). Practice also showed that there were occasional problems upon the acceptance of the electronic voucher card when the voucher card holder wanted to use his card in a network and acquiring devices other than those of the issuer. According to the information we have, this disadvantage is significantly reduced by the fact that individual issuers accept or will

⁸ Government Decree No. 55/2011 (IV.12.) on the Rules of Issuance and Use of the Széchenyi Recreation Card.

⁹ Article 7(1) of Government Decree No. 55/2011 (IV.12.) on the Rules of Issuance and Use of the Széchenyi Recreation Card.

accept one another's cards on a reciprocal basis. However, accepting one another's cards merely 'as a favour' is not a 'mandatory' solution. Therefore, it would be more transparent and reassuring if already at the level of the Decree we could speak about a legally enforced four-point system, in which the acceptance of the SZÉP Card of another issuer does not take place as a favour, on a 'gentlemen's agreement' basis. At the same time it would also clarify that the acquiring merchant has to have a contractual relationship only with his own acquiring service provider, and there is no need for direct contracts with the issuers.

- The fee left with the acquirer may be agreed upon in the contract between the acquirer and the issuer, but may not be more than 0.3 per cent. (Therefore, it corresponds to a reversed interchange fee: it is paid by the issuer to the acquirer for acceptance.) It can be considered as an advanced solution that the fee was determined in a provision of law, establishing a maximum extent.
- On-line authorisation and registration are applied in the case of the SZÉP Card. In any case, from a safety aspect this created the conditions of a better and more efficient solution over the longer term compared to off-line or paper-based systems.

Overall, examining the principles presented in the above section, the SZÉP Card receives a positive evaluation in several respects, although a further increase in the number of merchant outlets would be necessary, and it would be a better solution if we could speak about a four-point system at the level of the Decree as well. This would make it clear that acquiring merchants need to have a contractual relationship only with their acquiring bank, without having to enter into contracts with the issuers.

ELECTRONISATION OF THE ERZSÉBET VOUCHER MAY ALLOW FURTHER CONSIDERABLE IMPROVEMENT IN EFFICIENCY

At present, the Erzsébet voucher is issued on paper. Its popularity is attributable to the fact that in terms of tax allowances it is one of the most advantageous cafeteria

items. As for its function, it primarily serves social purposes, contrary to the SZÉP Card, which aims at economic development. There was news in the press that the notion of paying certain allowances and social benefits in Erzsébet vouchers had also been brought up.

The decree of the Minister of Public Administration and Justice on the issuance of the Erzsébet voucher allows its appearance in electronic format. Based on the arguments listed in this article this would result in a considerable improvement in efficiency in any case, whereas taking account of the principles discussed here may facilitate the successful implementation of electronisation from social, technical and business aspects alike.

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