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# Payment Cards

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## Abstract

The aim of this paper is to analyze the use of payment cards in retail in the Czech Republic from the side of clients (buyers) and the side of sellers. Questionnaires for clients examine satisfaction with cards and the service connected with them. Sellers' satisfaction with the profit and function of cards is analyzed. The data indicated that 92% of the 352 respondents in South Bohemia had a payment card and more than 35% had more than one card. In retail, 70% of sellers had a payment terminal.

**Key words:** payment card, payment, sellers, payment terminal, users

## 1 Introduction

With the advancement of technology and the need for better service provision, plastic money in the form of debit cards or credit cards has become common nowadays. These tools of purchase management are found in the wallets of nearly everyone. As a result, companies are also seeking to leverage the cards' benefits as a shopping/purchase facilitator. As with the emerging equalities of men and women and their equal and balanced role in shaping society, both genders have established quite active response patterns with respect to debit/credit card spending and use.

A large and growing number of payments in the EU are made with payment cards. Most of these cards carry the brands of international payment card schemes, like Visa and MasterCard, or domestic schemes, like Groupement des Cartes Bancaires, Consorzio Bancomat, or Electronic Cash (EU, 2015). Today's payment cards are a tool of non-cash payments in electronic banking. They are the old payment way, with quick access to electronic banking systems coming later (Polouček, 2006).

Cards are more flexible than checks and a cash payment system and give us safe access to our money anywhere, at any time. Banks and credit unions issue several types of bank cards, including ATM cards, debit cards, and credit cards for customers who qualify. These last cards often have low, fixed interest rates (Ryan, 2012). Most places that take credit cards also accept debit cards, and debit cards and credit cards have fairly similar formats and appearance (Mincher, 2007).

Used properly, credit cards can be a good tool for consumers, but without knowledge and discipline, credit cards can be the start of financial ruin. Some cards, such as Visa, MasterCard, American Express, and Discover, have almost universal merchant acceptance. Others are restricted to use at certain department stores, gas stations, etc., and are considered "revolving credit lines." The average American consumer has eight such open accounts at any given time (Mincher, 2007).

Controlling for customer and card characteristics, we find that financial literacy is a major determinant of satisfaction. When people know more about financial matters and use their knowledge in their financial activities, they make more efficient decisions and have fewer financial problems, which in turn leads to higher satisfaction. We also find that people who tend to use their credit cards for unnecessary shopping and who have a history of credit card delinquency are less satisfied (Akin, Aysan, Ozcelik, & Yildiran, 2012). The law in the Czech Republic is in the accordance with EU law system, mostly after the updating of the law of payment system No. 284/2009 Sb. In the Czech Republic, Visa and MasterCard are the most widely recognized cards (Juřík, 2001).

The most important matter related to this payment method is safety, which has historically been a problem in the Czech Republic. The division of cards can be done from different perspectives. The basic division is by the money remaining in the bank account or by the recording data. Lots of way to use the cards exist as well, and we can divide these by territory of use, owners' use of them, and service.

The target of this paper is to analyze the use of payment cards in the retail sector of the Czech Republic. The research was conducted with both clients and sellers.

**Hypothesis: Payment cards are now a common payment method among Czech citizens.**

## 2 Current Payment Card Situation in the Czech Republic

The situation in the Czech Republic is summarized in Table 1.

Table 1 shows that the number of purchases made using payment cards is increasing each year, accounting for 258.6% in volume of payments in the last five years. However, the average amount has decreased during this time, suggesting that payment cards are now the common method of payments used daily.

Figures 1 and 2 compare the EU to the Czech Republic. Because of their size, the figures are divided into two parts.

The average payment by sellers has decreased in the Czech Republic from year to year, but the total volume has increased from year to year. Comparing 2003 to 2015, the volume has more than quadrupled. There are conditions for increases in subsequent years. By the end of 2015, about 580,000 places accepted payment cards in the Czech Republic (The Association of Payment Cards in the Czech Republic, 2016). The impact of a new payment law with the unification with EU law in 2010 concerning payment cards is clearly seen in the table.

On the opposite side is the market of this payment in European areas increasing in all indicators. The reason for this is probably the history and habit of citizens there.

**Table 1.** Evaluation of Payments by Cards in the Czech Republic

	Number of payments by sellers	Volume of payments (in thousands of CZK/ Czech crowns)	Sellers' average payment (CZK)
2015	580,434,955	409,210,950	705
2014	479,675,371	467,678,538	975
2013	377,020,819	321,826,633	858
2012	308,186,163	288,834,301	921
2011	270,008,563	269,077,694	997
2010	224,409,915	203,591,131	907
2009	194,231,582	200,924,496	1034
2008	169,254,912	188,964,124	1116
2007	137,899,579	155,530,892	1128
2006	116,890,828	133,746,846	1144
2005	99,756,686	114,584,198	1149
2004	84,790,403	93,885,100	1107
2003	67,652,432	77,588,299	1147

Note: 1 EUR equals about 27 CZK.

Source: The Association of Payment Cards in the Czech Republic (2016), Author's own work.

**Figure 1.** Number of transactions per type of payment instrument—Card payments (except with e-money cards) (millions, total for the period)

	Total card payments					With cards with a debit function				
	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012
Belgium	934.09	997.40	1,066.89	1,154.32	1,226.88	828.17	885.20	945.90	1,020.57	1,087.60
Bulgaria	12.69	12.68	20.65	28.12	32.68	9.26	8.43	12.96	18.61	23.86
Czech Republic	147.51	175.18	213.27	269.23	320.45	135.89	159.66	191.11	238.47	279.12
Denmark	935.93	952.38	1,047.60	1,145.57	1,250.87	867.70	918.91	1,008.00	1,095.87	1,198.16
Germany	2,313.06	2,459.19	2,678.07	2,941.42	3,182.20	1,878.31	2,003.32	2,196.26	2,399.67	2,579.11
Estonia	148.33	155.47	167.36	197.39	212.45	132.51	138.33	149.91	179.14	193.49
Ireland	299.65	304.50	315.29	339.20	356.50	181.20	195.10	207.79	237.60	256.20
Greece	85.34	84.47	78.99	74.97	73.99	7.94	9.24	10.85	12.83	17.67
Spain	2,098.36	2,157.01	2,286.90	2,386.27	2,415.72	921.47	952.32	997.12	1,062.30	1,096.29
France	6,542.50	6,923.25	7,391.64	7,911.01	8,474.98	-	-	-	-	-
Italy	1,395.92	1,471.46	1,502.41	1,566.87	1,699.17	873.31	902.16	914.76	981.12	1,091.52
Cyprus	30.19	31.87	35.78	38.96	41.50	14.11	14.95	17.98	19.95	22.19
Latvia	95.13	97.75	101.86	113.97	127.96	69.41	74.16	78.93	92.24	105.90
Lithuania	88.94	93.02	98.65	107.08	130.85	81.85	84.60	88.52	95.39	118.05
Luxembourg	50.20	54.37	65.01	71.36	82.67	31.00	34.04	36.16	37.83	44.17
Hungary	166.30	183.56	209.46	231.54	264.17	142.65	157.60	184.16	204.37	230.30
Malta	10.13	11.24	12.99	13.84	15.73	6.47	7.17	8.07	8.88	10.23
Netherlands	1,876.85	2,070.56	2,305.59	2,444.44	2,642.89	1,779.87	1,978.12	2,206.41	2,333.92	2,530.66
Austria	344.29	383.61	421.54	446.32	488.75	274.53	292.80	316.89	328.62	358.79
Poland	576.67	703.91	844.23	1,025.99	1,215.59	425.08	528.83	656.65	826.67	1,001.54
Portugal	1,006.31	1,069.49	1,170.47	1,237.47	1,214.16	-	-	-	-	-
Romania	75.88	87.51	105.27	130.38	158.08	57.73	70.07	87.15	107.44	130.33
Slovenia	108.64	110.89	116.84	120.81	127.44	65.67	69.61	74.93	79.67	85.37
Slovakia	87.33	114.39	129.49	152.61	170.54	77.70	102.16	116.98	139.58	156.59
Finland	992.00	899.00	1,040.00	1,091.82	1,155.62	914.00	835.00	953.00	994.96	1,053.23
Sweden	1,650.40	1,773.10	1,940.30	1,982.30	2,190.00	1,196.40	1,306.30	1,421.20	1,477.50	1,648.00
United Kingdom	7,595.00	8,185.00	8,807.00	9,901.00	10,546.00	5,446.00	6,017.00	6,604.00	7,612.00	8,155.00
<b>Euro area total</b>	<b>18,087.52</b>	<b>19,142.69</b>	<b>20,617.89</b>	<b>22,189.07</b>	<b>23,581.19</b>	<b>7,776.04</b>	<b>8,281.16</b>	<b>9,003.10</b>	<b>9,836.62</b>	<b>10,583.12</b>
<b>EU total</b>	<b>29,667.64</b>	<b>31,562.25</b>	<b>34,173.56</b>	<b>37,124.25</b>	<b>39,817.84</b>	<b>16,418.21</b>	<b>17,745.05</b>	<b>19,485.69</b>	<b>21,605.18</b>	<b>23,473.38</b>

Source: ECB (2013)

	Total card payments					With cards with a delayed debit function				
	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012
Belgium	934.09	997.40	1,066.89	1,154.32	1,226.88	-	-	-	-	-
Bulgaria	12.69	12.68	20.65	28.12	32.68	-	-	-	-	-
Czech Republic	147.51	175.18	213.27	269.23	320.45	0.14	0.16	0.25	0.24	0.25
Denmark	935.93	952.38	1,047.60	1,145.57	1,250.87	-	-	-	-	-
Germany	2,313.06	2,459.19	2,678.07	2,941.42	3,182.20	394.98	415.39	447.89	501.22	559.69
Estonia	148.33	155.47	167.36	197.39	212.45	0.00	0.00	-	-	-
Ireland	299.65	304.50	315.29	339.20	356.50	-	-	-	-	-
Greece	85.34	84.47	78.99	74.97	73.99	2.14	1.96	1.79	1.63	1.48
Spain	2,098.36	2,157.01	2,286.90	2,386.27	2,415.72	-	-	-	-	-
France	6,542.50	6,923.25	7,391.64	7,911.01	8,474.98	-	-	-	-	-
Italy	1,395.92	1,471.46	1,502.41	1,566.87	1,699.17	-	-	-	-	-
Cyprus	30.19	31.87	35.78	38.96	41.50	0.13	0.69	0.82	0.92	0.96
Latvia	95.13	97.75	101.86	113.97	127.96	2.83	3.69	4.83	7.11	10.66
Lithuania	88.94	93.02	98.65	107.08	130.85	-	-	-	-	-
Luxembourg	50.20	54.37	65.01	71.36	82.67	-	-	-	-	-
Hungary	166.30	183.56	209.46	231.54	264.17	0.52	0.45	0.50	0.50	0.46
Malta	10.13	11.24	12.99	13.84	15.73	-	-	-	-	-
Netherlands	1,876.85	2,070.56	2,305.59	2,444.44	2,642.89	-	-	-	-	-
Austria	344.29	383.61	421.54	446.32	488.75	36.67	56.84	68.49	79.49	89.80
Poland	576.67	703.91	844.23	1,025.99	1,215.59	14.49	13.67	12.36	11.89	11.81
Portugal	1,006.31	1,069.49	1,170.47	1,237.47	1,214.16	-	-	-	-	-
Romania	75.88	87.51	105.27	130.38	158.08	0.59	0.26	0.46	0.51	0.46
Slovenia	108.64	110.89	116.84	120.81	127.44	39.27	38.35	38.93	38.07	38.83
Slovakia	87.33	114.39	129.49	152.61	170.54	0.21	0.17	0.19	0.17	0.14
Finland	992.00	899.00	1,040.00	1,091.82	1,155.62	-	-	-	-	-
Sweden	1,650.40	1,773.10	1,940.30	1,982.30	2,190.00	42.90	40.30	46.20	41.90	43.00
United Kingdom	7,595.00	8,185.00	8,807.00	9,901.00	10,546.00	179.00	166.00	170.00	166.00	167.00
<b>Euro area total</b>	<b>18,087.52</b>	<b>19,142.69</b>	<b>20,617.89</b>	<b>22,189.07</b>	<b>23,581.19</b>	<b>473.19</b>	<b>513.41</b>	<b>558.11</b>	<b>621.50</b>	<b>690.90</b>
<b>EU total</b>	<b>29,667.64</b>	<b>31,562.25</b>	<b>34,173.56</b>	<b>37,124.25</b>	<b>39,817.84</b>	<b>713.86</b>	<b>737.94</b>	<b>792.70</b>	<b>849.64</b>	<b>924.54</b>

Source: ECB (2013)

**Figure 2.** Number of transactions per type of payment instrument—Card payments (except with e-money cards) (millions, total for the period)

	With cards with a credit function					With cards with a debit and/or delayed debit function				
	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012
Belgium	-	-	-	-	-	-	-	-	-	-
Bulgaria	3.44	4.25	7.69	9.51	8.82	-	-	-	-	-
Czech Republic	11.48	15.36	21.91	30.52	41.08	-	-	-	-	-
Denmark	68.23	33.47	39.60	49.70	52.71	-	-	-	-	-
Germany	39.77	40.48	33.92	40.53	43.40	-	-	-	-	-
Estonia	15.82	17.14	17.46	18.25	18.94	-	-	-	-	-
Ireland	118.45	109.40	107.50	101.60	100.30	-	-	-	-	-
Greece	75.26	73.27	66.35	60.52	54.84	-	-	-	-	-
Spain	-	-	-	-	-	-	-	-	-	-
France	-	-	-	-	-	-	-	-	-	-
Italy	-	-	-	-	-	-	-	-	-	-
Cyprus	15.84	16.14	16.86	17.96	18.20	0.11	0.10	0.11	0.13	0.15
Latvia	22.89	19.90	18.10	14.63	11.40	-	-	-	-	-
Lithuania	7.09	8.42	10.13	11.70	12.80	-	-	-	-	-
Luxembourg	19.20	20.33	28.85	33.53	38.50	-	-	-	-	-
Hungary	23.13	25.51	24.81	26.67	33.41	-	-	-	-	-
Malta	3.65	4.07	4.92	4.96	5.50	-	-	-	-	-
Netherlands	-	-	-	-	-	-	-	-	-	-
Austria	33.10	33.97	36.16	38.21	40.15	0.00	0.00	0.00	0.00	0.00
Poland	137.10	161.40	175.23	187.43	202.24	-	-	-	-	-
Portugal	-	-	-	-	-	866.99	907.15	963.34	1,004.18	976.82
Romania	17.54	17.18	17.67	22.43	27.29	-	-	-	-	-
Slovenia	3.70	2.93	2.99	3.07	3.23	-	-	-	-	-
Slovakia	9.42	12.06	12.32	12.86	13.81	-	-	-	-	-
Finland	-	-	-	-	-	-	-	-	-	-
Sweden	101.10	107.80	139.40	115.20	123.00	125.70	132.20	136.80	151.50	162.00
United Kingdom	1,791.00	1,819.00	1,857.00	1,926.00	2,023.00	-	-	-	-	-
<b>Euro area total</b>	<b>308.98</b>	<b>312.65</b>	<b>309.87</b>	<b>331.48</b>	<b>336.88</b>	<b>867.10</b>	<b>907.25</b>	<b>963.45</b>	<b>1,004.31</b>	<b>976.96</b>
<b>EU total</b>	<b>2,517.23</b>	<b>2,542.09</b>	<b>2,638.85</b>	<b>2,725.26</b>	<b>2,872.63</b>	<b>992.80</b>	<b>1,039.45</b>	<b>1,100.25</b>	<b>1,155.81</b>	<b>1,138.96</b>

Source: ECB (2013)

	With cards with a credit function					With cards with a credit and/or delayed debit function				
	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012
Belgium	-	-	-	-	-	105.92	112.20	120.99	133.74	139.28
Bulgaria	3.44	4.25	7.69	9.51	8.82	-	-	-	-	-
Czech Republic	11.48	15.36	21.91	30.52	41.08	-	-	-	-	-
Denmark	68.23	33.47	39.60	49.70	52.71	-	-	-	-	-
Germany	39.77	40.48	33.92	40.53	43.40	-	-	-	-	-
Estonia	15.82	17.14	17.46	18.25	18.94	-	-	-	-	-
Ireland	118.45	109.40	107.50	101.60	100.30	-	-	-	-	-
Greece	75.26	73.27	66.35	60.52	54.84	-	-	-	-	-
Spain	-	-	-	-	-	1,144.35	1,169.18	1,261.48	1,302.22	1,303.27
France	-	-	-	-	-	-	-	-	-	-
Italy	-	-	-	-	-	522.61	569.30	587.66	585.76	607.65
Cyprus	15.84	16.14	16.86	17.96	18.20	-	0.00	0.00	0.00	0.00
Latvia	22.89	19.90	18.10	14.63	11.40	-	-	-	-	-
Lithuania	7.09	8.42	10.13	11.70	12.80	-	-	-	-	-
Luxembourg	19.20	20.33	28.85	33.53	38.50	-	-	-	-	-
Hungary	23.13	25.51	24.81	26.67	33.41	-	-	-	-	-
Malta	3.65	4.07	4.92	4.96	5.50	-	-	-	-	-
Netherlands	-	-	-	-	-	96.98	92.44	99.18	110.53	112.24
Austria	33.10	33.97	36.16	38.21	40.15	0.00	0.00	0.00	0.00	0.00
Poland	137.10	161.40	175.23	187.43	202.24	-	-	-	-	-
Portugal	-	-	-	-	-	139.32	162.34	207.13	233.29	237.34
Romania	17.54	17.18	17.67	22.43	27.29	0.02	-	-	-	-
Slovenia	3.70	2.93	2.99	3.07	3.23	-	-	-	-	-
Slovakia	9.42	12.06	12.32	12.86	13.81	-	-	-	-	-
Finland	-	-	-	-	-	78.00	64.00	87.00	96.86	102.38
Sweden	101.10	107.80	139.40	115.20	123.00	184.20	186.60	196.70	196.30	214.00
United Kingdom	1,791.00	1,819.00	1,857.00	1,926.00	2,023.00	179.00	183.00	176.00	197.00	201.00
<b>Euro area total</b>	<b>308.98</b>	<b>312.65</b>	<b>309.87</b>	<b>331.48</b>	<b>336.88</b>	<b>2,087.18</b>	<b>2,169.47</b>	<b>2,363.43</b>	<b>2,462.40</b>	<b>2,502.17</b>
<b>EU total</b>	<b>2,517.23</b>	<b>2,542.09</b>	<b>2,638.85</b>	<b>2,725.26</b>	<b>2,872.63</b>	<b>2,450.40</b>	<b>2,539.07</b>	<b>2,736.13</b>	<b>2,855.70</b>	<b>2,917.17</b>

Source: ECB (2013)

### 3 Methods

Two types of questionnaires (see enclosures) were used in different ways. These questionnaires were sent to clients using an Internet application; sellers' responses were obtained through personal contact. Both questionnaires contained anonymous questions. They required soft and hard data. The questionnaire included closed and open questions. The survey was conducted in April and May 2016.

The structure of the sample is presented in the next section. The obtained answers were analyzed using relative frequencies.

### 4 Results

#### 4.1 Clients

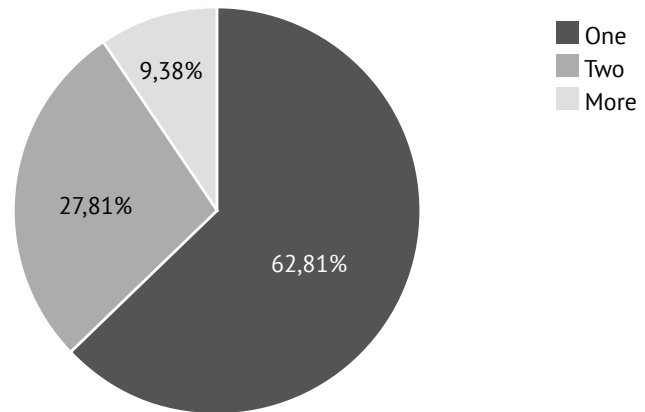
The questionnaire responses were obtained from online Czech questionnaire pages VypInto.cz. The advantage of this approach is low time demands and the possibility to appeal to more respondents. The disadvantage is a lower return and loss of personal touch with respondents.

The research included adult citizens of the Czech Republic. The average time to complete the questionnaire was 68 seconds. The questionnaire consisted of 11 questions to obtain information on respondents' age, sex, education, and ownership of payment cards as well as how they use them (e.g., how often and how much they pay). If they did not have any cards, they were asked why not.

Ultimately, 230 women and 122 men responded (i.e., 65.3% and 34.7%, respectively). The age was divided into four target audiences: from 15 to 26 years (65%), from 27 to 40 years (25%), from 41 to 60 years (9%), and over 60 years (1%). The education of respondents was as follows: 177 (50.2%) had a university degree, 152 (43.2%) completed some college, and the remaining 17.6% had professional training or basic education.

Concerning the ownership of payment cards there, only 29 respondents (8.2%) had none. Meanwhile, 62.8% had only 1 card, 27.8% had 2 cards, and 9.4% had more than 2 cards. Among the youngest respondents, nearly 93% owned cards, compared to 97% in the middle category 90% in the two oldest categories. Men more often owned more than 2 cards than women (52% versus 24%, respectively). Results are shown in Figure 3.

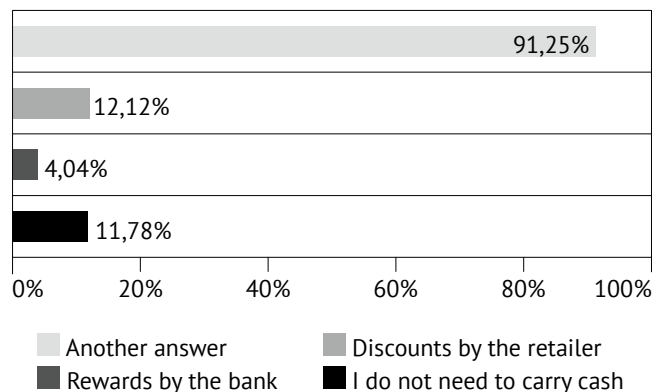
Figure 3. Ownership of payment cards



Source: Author's own work

The next answer targeted the use of cards. A majority (297) of respondents indicated using payment cards for shopping (92%). Explanations for why respondents used payment cards are shown in Figure 4.

Figure 4. Why do you pay by cards?



Source: Author's own work

Bank bonuses or rewards in the Czech Republic are mostly offered by credit cards. These do not seem to be very attractive to clients in this research. People use payment cards to withdraw money from ATMs, make quick and comfortable payments, and lower the possibility of making a mistake on a payment while clarifying the payment arrangement.

The answers to the next questions regarding frequency and volume of respondents' payment are shown in Table 2.

From the table it is clear that people in the Czech Republic use cards as a more common way of payment, but only several times a month.

**Table 2.** Use of Payment Cards

Frequency of payments	Number of respondents	%
Daily	33	11.1
Several times in a week	131	44.1
Once in a week	31	10.4
Several times in a month	70	23.6
Not so much	32	10.8

Source: Author's own work

The last two questions were oriented to non-owners of payment cards. They were not required to answer, but 90% of affected respondents answered. The first one was reasons for non-ownership of cards. It was an open question, and respondents usually answered in two ways: They did not see any need for a payment card or they did not have an account with any bank because they do not have money (mostly students and seniors respondents). Yet 61% said there was a possibility they would get a card in the future.

## 4.2 Sellers

The second part of the research involved personally administered questionnaires to owners or managers of retail shops in four towns in South Bohemia: České Budějovice (population of 95,000), Tábor (35,000), Milevsko (9,000), and Chýnov (2,500). In total, 51 shops were screened: 27 in Milevsko, 10 in České Budějovice, 11 in Tábor, and 3

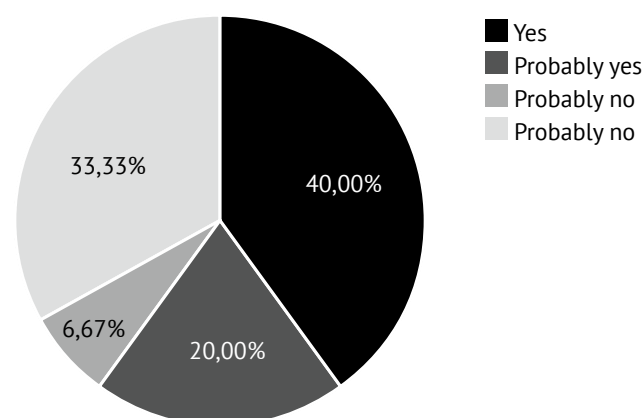
**Table 3.** Composition of Sellers

Core business	Number of respondents	%
Households needs	2	3.9
Drugstore	4	7.8
Electric appliances	3	5.9
Toys	4	7.8
Pets needs	4	7.8
Books	3	5.9
Jewelry	3	5.9
Flowers	2	5.9
Pharmacy	3	5.9
Shoes	3	5.9
Wear	4	7.8
Food	8	15.7
Underwear	2	3.9
Sport	3	5.9
Not specific	3	5.9

Source: Author's own work

in Chýnov. The questionnaire included 7 requests: 1 for the non-owner of a payment terminal the rest for the owner. The basic description of respondents (sellers) is summarized in Table 3.

According to the data, 70.6% of respondents offered the possibility to pay by any card. The remaining 29.4% are shops with small returns or cheaper goods. The exact division of their interest is shown in Figure 5.

**Figure 5.** Would you purchase a payment terminal?

Source: Author's own work

Regarding respondents using a non-cash payment system, the first question targeted the agreement. Among 36 shops, 31 have signed agreements with all providers in the Czech Republic (i.e., Visa, MasterCard, Amex, Diners Club and JBC). Visa and MasterCard providers are present in all shops (i.e., 36) while the remaining 5 shops have not signed agreements with Diners Club, Amex, or JBC.

The second questions analyzed the turnover situation, as shown in Table 4.

**Table 4.** Payments by Cards in Turnover

% of payments of turnover	Number of respondents	% of respondents
0–10	7	19.4
11–20	3	8.3
21–30	9	25.0
31–40	6	16.8
41–50	1	19.4
Over 50	1	2.8
I do not know	3	8.3

Source: Author's own work

The data indicated that 29 respondents were satisfied with this way of payment. Only 2 respondents complained about technical problems, which sometimes happen and disturb them. The first one complained about old terminals that do not work perfectly. She thought that having Near Field Communication (NFC) technology would solve the problem. The second one complained about a problem common to shoe shops; there are a lot of claims, but they cannot return money to clients. The last question analyzed NFC technology placement, which seems very attractive. This technology was offered in 16 of 36 shops.

## 5 Discussion

The paper examined the market of payment cards in the Czech Republic to compare it with some other countries. The history of retail payments over the past three decades shows a steady migration toward electronic and card-based payments. In the continued pursuit of revenue growth, issuers in mature markets, such as the US, Canada, and the UK, have looked to developing markets for sources of growth. The fastest-growing card markets are in Eastern Europe, India, Brazil, and China. These countries, along with Turkey, Greece, Russia, the Czech Republic, Hungary, and Poland are all enjoying double-digit transaction growth in the use of cards, starting from a very small penetration of cards in the population. These markets show great promise in the long term (Baxley & Hergenroeder, 2012). For example, the number of cards issued or used in 2016 was 11,399,055, including 2,231,866 credit cards and 9,154,399 debit cards. This total exceeds the number of inhabitants in the Czech Republic.

According to a survey of Reserve Bank of India (RBI), more cardholders reduced the number of cards in their wallets and consolidated spending with a single card in 2011. The proportion of single cardholders grew most in India in 2011 (90%), followed by the Philippines (84%) and Malaysia (80%). The use of cards is perceived differently by various consumer classes. Women might be bigger spenders than men, but they use their debit cards less frequently according to the RBI study (Kuman & Tanu, 2013). This finding does not correspond with our survey, suggesting that Asian markets change in a different way than the market in the Czech Republic.

In the US, 39.4% of families carry a credit debt with an average debt of \$7,100. People are likely to underreport their debt on such surveys, so the figure could be substantially higher. One consequence of debt is personal bankruptcy filings, which numbered more than 1.5 million in 2010. College students are especially vulnerable because credit

card debt adds on to student loans (Soll, Keeney, & Larrick, 2012). This finding corresponds with our survey, which was not oriented to the credit card market, but this market was included in the research.

Credit card usage has become widespread in Turkey in the past decade. The number of credit cards increased from 13.4 million in 2000 to 47 million in 2010, making Turkey the second-largest market in Europe, after the UK. As the market increased and reached risky segments of society, problems associated with credit cards ensued. Many cardholders defaulted on their debts. Overconsumption fueled by credit card advertisements, promotions, installments, and easy access to credit might have contributed to this outcome. Cardholders' dissatisfaction became an overriding concern for both the state and banks in the mid-2000s. A series of credit card regulations, including a price ceiling on interest rates, were enacted in 2006. The problems and complaints about credit cards, however, do not seem to have diminished (Akin et al., 2012). It looks like the matter of financial literacy is very important in the use of credit cards, and it is necessary to continue to research this situation in any country.

According to Wright (2012), some have further argued that retailers accept cards that raise their costs, as the alternative—rejecting payment cards—is not a viable option for retailers given that customers expect to be able to use these cards (i.e., the so-called must-take cards argument).

This survey found an increasing volume of payments made by cards from year to year in the Czech Republic. This payment method is now very common, as evident from the decreased average amount. A good aim for future surveys is to examine credit card use and problems connected with the resulting debt.

## 6 Conclusion

The target of this paper was to analyze the use of payment cards in the retail sector of the Czech Republic. The research was conducted with both clients and sellers.

The history of payments by cards started in the Czech Republic in the 1990s, when the market started to offer this service. In the beginning, cards were mostly used for withdrawing money from ATMs, but this changed very quickly. In 2007, the number of withdrawals was nearly the same as the number of payments by card. Such big growth stemmed from the use of NFC technology, which offered quicker, more comfortable, and safer payments without cash.

This research found that 92% of 352 respondents in South Bohemia have payment cards and more than 35% have more than one card. Non-owners are mostly students and senior citizens. Nearly 92% of credit card owners use it for retail payments. They see advantages from cards, such as no-fee payments (unlike ATM withdrawals), no need to carry a lot of money with them, and quick and safe manipulation. The disadvantages mentioned included the time required for payments and the habit of carrying cash.

Among retailers, 70% of sellers had a payment terminal. Sellers of cheaper goods mostly did not have a terminal

because of the small turnover and habit of Czech people to not pay small amounts using a card. The ownership of a payment terminal does not depend on the size of shop in this research. The sellers usually accept all cards, although 15% do not accept AMEX, Diners Club, and JBC. Retailers were mostly satisfied with the service; they only complained about fees for this service.

As this research has demonstrated, payment cards are now a common payment method among Czech citizens, thereby supporting our hypothesis. What should be surveyed now is the situation with credit cards and resulting debt from them.

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## Enclosure 1: Questionnaire for users

- 1.) Say please your age
- 2.) Say please your sex
- 3.) Say please your education level: university, college, professional, basic
- 4.) Ownership of any payment card? Yes/no
- 5.) If no, why?
- 6.) If yes, do you use it? Yes/no
- 7.) How often you use it?
- 8.) How much do you pay on it (average amount)?
- 9.) Why do you have it? I do not need to carry cash/Rewards from the bank/Discount from retailer/Another reason
- 10.) Do you have one or more cards?
- 11.) If you do not have any card now, do you think you might in the future?



## Enclosure 2: Questionnaire for retailers

- 1.) Say please your core business
- 2.) Do you have a payment terminal? Yes/no
- 3.) If no, would you purchase a payment terminal? Yes/Probably yes/Probably no/No
- 4.) If yes, how is your agreement made?
- 5.) Say please the participation of payments in your turnover: 0–10%/11–20%/21–30%/31–40%/41–50%/More than 50%/I do not know
- 6.) Are you satisfied with this way of payments?
- 7.) Do you have NFC technology?

## Author

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## Plačilne kartice

### Izvleček

Cilj tega članka je analizirati uporabo plačilnih kartic med kupci in med prodajalci v prodaji na drobno na Češkem. Vprašalniki, namenjeni kupcem, so usmerjeni na zadovoljstvo s karticami in z njimi povezanimi storitvami. Pri kupcih analiziramo zadovoljstvo z dobičkom in funkcijami kartic. Raziskava kaže, da ima od 352 respondentov v Južni Češki plačilne kartice 92 odstotkov ljudi in da jih ima več kot 35 odstotkov več kartic. Ugotovljeno je bilo, da ima 70 odstotkov prodajalcev plačilni terminal.

**Ključne besede:** plačilna kartica, plačilo, prodajalci, plačilni terminal, uporabniki