



Swiss Payment Monitor 2018

How does Switzerland pay?

swisspaymentmonitor.ch

Bettina Gehring
Sandro Graf
Dr. Tobias Trütsch

zhaw School of
Management and Law

 Universität St.Gallen

Foreword

How does Switzerland pay?

Payments are, simply put, a question of habit. The majority of Swiss citizens pay as they've always paid; risky experiments are not an option when it comes to payment methods. These habits had been relatively stable until recent years when—not least because of a large number of new suppliers—some movement in the market as well as initial signs of change were observed. Where this path will lead is still up for discussion. In any case, it will be exciting to follow the current development of the Swiss payment landscape.

For several years, the Swiss Payment Research Centre (SPRC) of the Zurich University of Applied Sciences and the Executive School of Management, Technology and Law (ES-HSG) at the University of St. Gallen have been independently looking at issues related to the topic of “payment” from different angles. The increased dynamics on the market have provided the ZHAW and the University of St. Gallen with an opportunity to undertake a large-scale joint research project to analyse the payment behaviour of the Swiss population as well as any underlying motives and their development over time.

It focuses on the first annually conducted Swiss payment study, which combines a consumer perspective with macro-economic points of view. The current report is based on a 2017 survey and is the first edition of many to be published in a series of studies over the coming years. In total, the survey took into account more than 1,000 people between the ages of 18 and 65 from all three regions of Switzerland. The study is financially supported by the Swiss Payment Association (SPA) as well as industry partners Concardis and SIX Payment Services.

We wish you an interesting read!

Bettina Gehring, Sandro Graf, Dr. Tobias Trütsch

Table of contents

I. THE MOST SIGNIFICANT FINDINGS FROM THE PAYMENT MONITOR 2018	4
II. STUDY DESIGN	6
III. RECOGNITION AND IMAGE OF PAYMENT METHODS	8
IV. A LOOK INTO YOUR WALLET	10
V. CRITERIA FOR CHOICE OF PAYMENT METHOD	12
VI. PAYMENT BEHAVIOUR	14
VII. A LOOK INTO THE FUTURE	28
VIII. GLOSSARY	33

I. The most significant findings from the Payment Monitor 2018

Debit card trumps cash

The debit card is the most popular form of payment for the Swiss. Not only is it seen as easier, more practical and more trustworthy than other payment methods but it comes in first place, accounting for 25 % of total expenditure. Debit cards score a lot of points with the younger crowd in particular. In terms of popularity and share of turnover, online transfers also rank very highly. Nevertheless: very few forego cash altogether. Therefore, in terms of the number of transactions, cash is still the most widely used payment method in Switzerland; most people claim to have at least a few coins in their wallet or trouser pockets.

Payment decisions depend on the situation

Total amount, place of payment and payment context (in-store or online shopping) play an essential role in the choice of payment method. This equates to small sums of up to CHF 20 still mostly being paid in cash; card payments usually only come into play for purchases that cost more than this.

With regard to the place of payment, card payments dominate in high-turnover retail. In comparison to other forms of payment, cash is much more commonly used in restaurants and bakeries, at external sales points (kiosks and take-aways) as well as at machines. In contrast, the classic credit card is increasingly being used in retail for longer-term purchases, at petrol stations, in restaurants and while travelling.

There is no such thing as a prototypical payer

Payment preferences vary greatly from person to person. Accordingly, payment decisions are made on a very individual level, which means: there is no typical payer. Furthermore, most people are generally mixed payers and prefer different forms of payment according to the payment context and amount. The so-called "mono-payer", who uses just one form of payment, is in the minority.

Security as the most important criterion when choosing a payment method

Which factors encourage the use of a certain payment method? According to the survey, the top criteria are %security% and %no additional fees%, closely followed by the reliability of the payment method. Because these factors are highly relevant across both payment contexts and users, it suggests that the consideration of the respective criteria is central for the acceptance of a payment method; method-specific advantages only come into effect when the relevant requirements are met.

The prominence of new payment methods

Swiss people are not only adept at traditional payment methods, they are also aware of newer forms such as contactless or even mobile payments. Particularly notable in the open-ended question survey is the rise in popularity of both Twint and PayPal.

I. THE MOST SIGNIFICANT FINDINGS FROM THE PAYMENT MONITOR 2018

Mobile payment: what's in a name?

Despite its considerable popularity, as of yet there is no universal understanding of mobile payments. The term is most commonly associated with payments made using an app with integrated payment functions (so-called in-app payments) and payments made with a mobile phone at a local shop, followed by payments made online with a mobile phone.

New forms of payment unable to take hold

Nonetheless, there is still only a comparably small number of users who make mobile payments, and there are clear differences in the patterns of use. This means that in-app payment methods are relatively widespread, with a usage rate of 60%, and online mobile payments are also gaining ground.

User statistics for other payment methods with smartphones are still very low.

The more negative appraisal of new payment methods, such as contactless or mobile solutions, compared to traditional forms of payment suggests that current solutions do not adequately meet users' needs or offer enough benefits (or that the public may not be fully aware of them).

Contactless and mobile payment methods have potential

Despite their popularity, new payment methods are still used with caution. Although the number of respondents who use this form of payment is not insignificant, the effective number of users is still quite low. According to journal entry data, just under 7% use contactless payment and less than 2% take advantage of mobile payment, which indicates their irregular use.

Nevertheless, new payment methods have the potential for greater use, especially among users in this study: over 70% of the people who say they use new forms of payment could imagine using them more frequently in the future—provided that the necessary requirements are met.

II. Study design

The goal of the Swiss Payment Monitor is to provide a comprehensive overview of the Swiss payment landscape from various perspectives. By combining a variety of research methods, this long-term study gathers data annually to offer an integrated approach to the payment method market, enabling a documentation of new developments as well as a report of relevant trends over time.

The study encompasses two parts: the micro-perspective consists of a standardised online survey with questions concerning payment behaviour in general and a payment journal that participants are asked to complete; the macro-perspective is based on an analysis of publicly available data on the electronic payment transactions of the Swiss National Bank (SNB) (cf. Fig. 1).

Micro-perspective

The micro perspective reflects the consumer perspective and summarises the payment habits as well as the perception and attitudes of the Swiss towards various forms of payment.

To represent the micro-perspective element, a total of 1,018 people between the ages of 18 and 65 from the German-, French- and Italian-speaking areas of Switzerland were interviewed.

ONLINE SURVEY

The first step asked participants to answer online questions regarding the topic %payment%. The focus here was primarily the participants' self-awareness and the assessment of various aspects of their payment behaviour. The survey took about 25 minutes to complete and was implemented in stages during the second half of October 2017.

PAYMENT JOURNAL

At the end of the online survey, participants document their payment behaviour in the form of a journal over a period of 7 days (cf. Table 1). Accordingly, participants were asked to record all payments made throughout the course of the day—with the exception of recurring expenses—and to



Fig. 1

II. STUDY DESIGN

classify these using predefined characteristics. As opposed to the online survey, the focus here was primarily the participants' actual payment behaviour and, based on this, any variance in behaviour as stated in the first part of the survey. The payment journal could either be filled out online or using the app, which facilitated the timely recording of transactions after purchase.

The study participants were recruited via the %intervista Online Access Panel%. In order to ensure the representativeness of the sample, the selection of participants was based on the quota system of the previously defined criteria of (linguistic) region, gender, age and educational level. Following the survey, data were adjusted and weighted according to the structural characteristics of the population of the Swiss population (see Fig. 2).

Macro-perspective

The macro-perspective pertains to the entire economic scope and documents payment transactions on an aggregate level based on the publicly available data from the Swiss National Bank (SNB) until the end of 2017. It provides unaltered representation of cashless payment transactions in Switzerland and with Swiss payment cards abroad; both the number and turnover of cashless payment transactions are taken into account. Furthermore, it provides information regarding effective cash withdrawal using payment cards.

SAMPLE OF ONLINE SURVEY AND JOURNAL

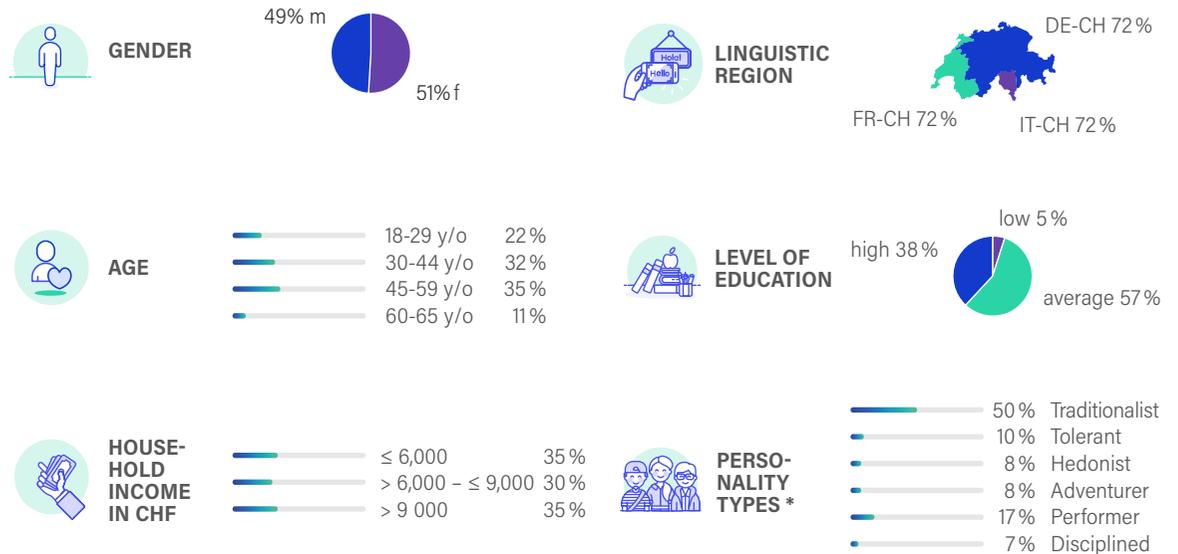


Fig. 2

* based on limbic® types

Overview of payment journal	
Duration of journal entries	7 DAYS
Number of completed journals	814
Volume of sales	CHF 492,694
Volume of transactions	8,339
Average number of transactions a week per person	10.2
Average number of transactions a day per person	1.5
Average amount due per transaction	CHF 59.08

Table 1

III. Recognition and image of payment methods

Popularity of payment methods

Swiss people are not only adept at traditional payment methods; newer methods such as contactless payment are rising in popularity (see Fig. 3). Accordingly, 90% of respondents say they are familiar with contactless payment; this number increases to 95% for credit card use.

With 94%, in-store mobile payment ("proximity mobile payment") is already widespread; the Internet ("remote mobile payment") less so at 88%. Payments made with mobile applications (so-called "in-app" payments) were known to 91% of the participants. Payments made by smartphone between individuals (peer to peer/P2P) are more popular than those outside the border (60%). In this context, recognition is less about the name of payment types, and more about the individual payment providers or their brands (e.g. PayPal, Twint).

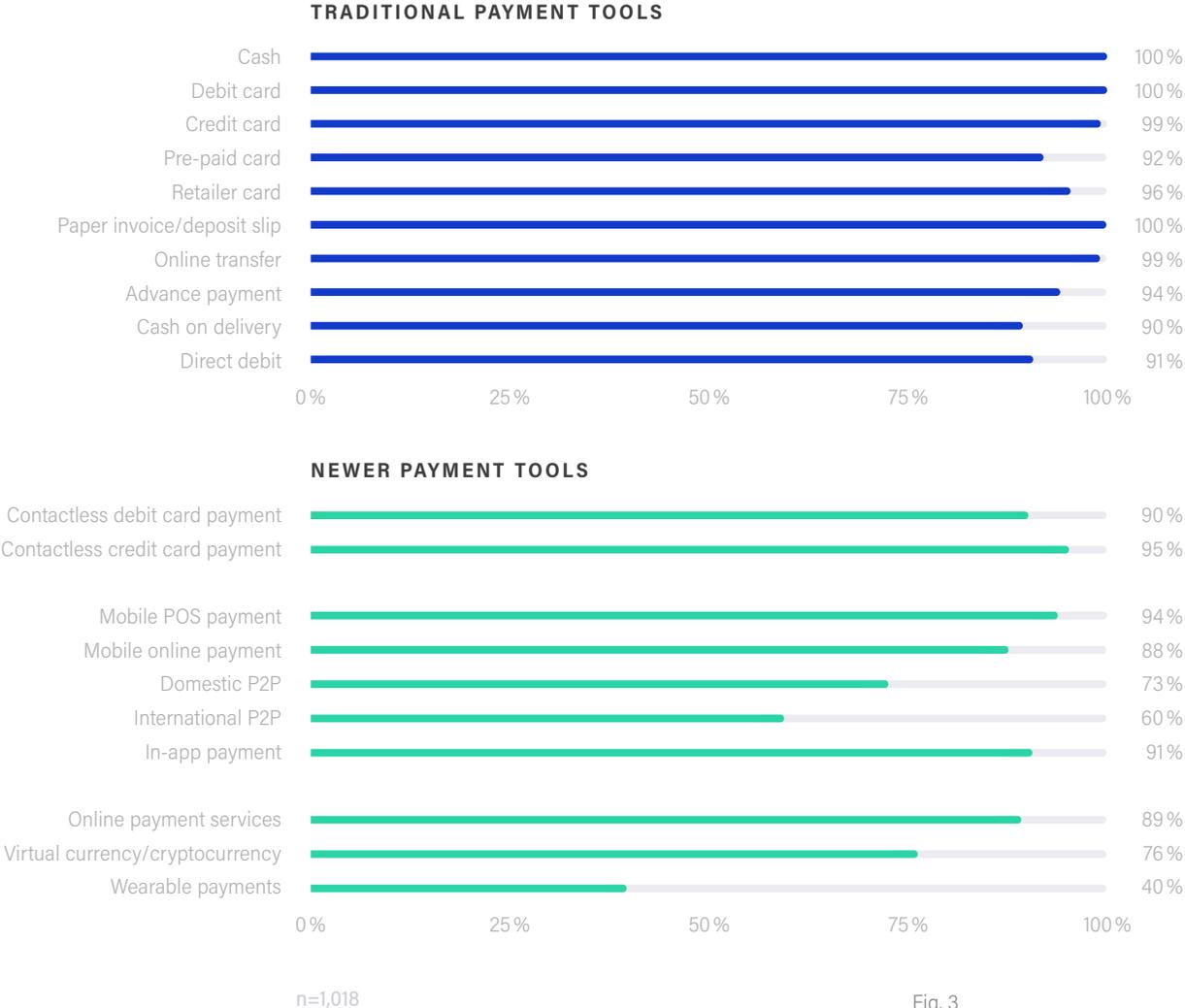


Fig. 3
 Question: *Please indicate which of the listed payment methods / payment types you know.*
 (Based on all respondents)

III. RECOGNITION AND IMAGE OF PAYMENT METHODS

Attitudes toward payment methods

Debit cards (Maestro card, PostFinance card/Post card, VPay) are the most common form of payment for the Swiss population (cf. Fig. 4). Debit cards are seen as easier to use, more practical and more trustworthy than other forms of payment, and many consider them to be indispensable. However, cash—a long-time favourite for the Swiss—has lost much of its appeal (especially compared to the debit card).

Credit cards still have a strong showing regarding payments abroad, the purchase of big-ticket items and spontaneous purchases.

The newer payment methods, such as contactless or mobile payments, tend to be perceived more negatively than the traditional means of payment, i.e. cash, debit and credit cards. This suggests that the existing solutions for such novel methods either do not adequately cover user needs, do not offer enough benefits, or may not yet be widely known. It should be noted that non-users have a markedly lower opinion of these payment methods than users.

Although the use of contactless payment is on the rise, it is perceived as being less easy to use, less reliable and less trustworthy than conventional forms of payment. Furthermore, the respondents associated contactless payment with the idea of less control when paying, increased efforts to control spending (debt trap) and decreased acceptance at points of sale.

In terms of mobile payment, opinions were divided: While mobile payments made on site / at the POS (e.g. Apple Pay, Samsung Pay, Twint) found little positive reception, online mobile payment (e.g. PayPal, Twint) received more favourable reviews.

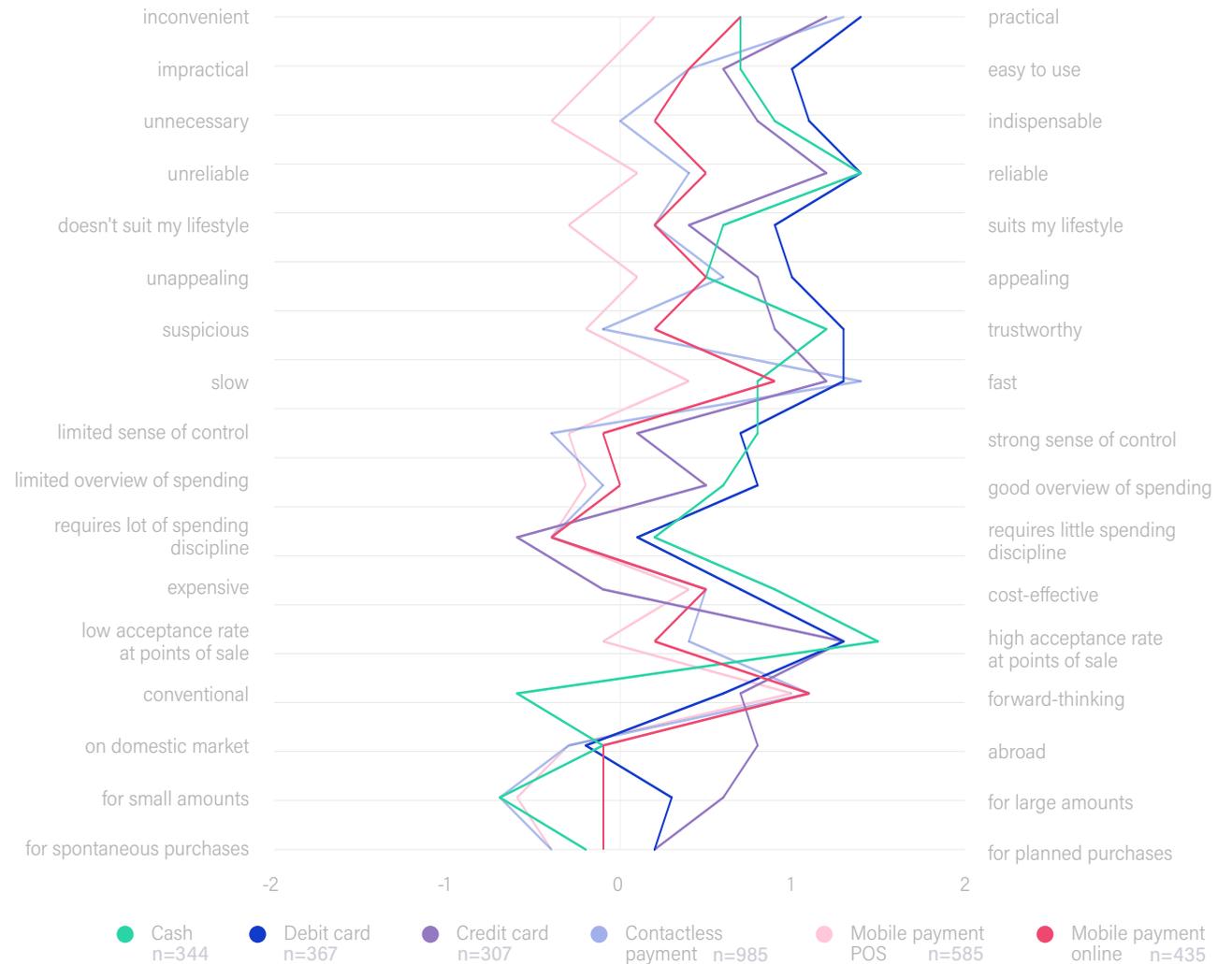


Fig. 4

Question: To what extent do the listed descriptions/characteristics meet your expectations of "payment methods"?

(Based on people who are familiar with payment methods; random selection for cash, debit card and credit card)

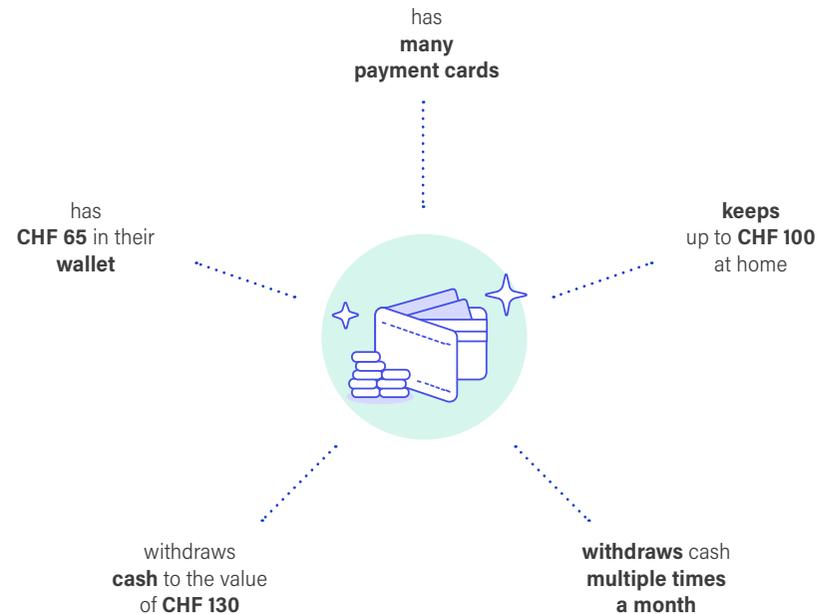
IV. A look in your wallet

Cash withdrawal and on-hand cash

The Swiss still see cash as indispensable. This is seen in the wallets of Swiss men and women (cf. Fig 5): So most people have on average at least CHF 20 to CHF 120 in cash on their person; only 2% say they do not carry cash at all.

There are socio-demographic differences that can be observed regarding the possession of cash: to begin, men carry significantly higher amounts of money (between CHF 20 and CHF 150) than women; at the same time, men more often claim not to have any cash in their wallet or pockets. The elderly in particular also value cash, which likewise indicates that, among other things, people 45 and older have significantly more ready cash than younger people.

THE AVERAGE SWISS...



n=814

Fig. 5

Note: The average value is based on the median.

IV. A LOOK IN YOUR WALLET

Aside from cash, most Swiss own multiple payment cards (cf. Fig. 6). Accordingly, 94% of participants have a debit card, 90% have a credit card and 40% have a retailer card with a payment function (Globus card, MyOne card, etc.). The average owner possesses 1.6 debit cards, 1.5 credit cards and 1.8 retailer cards. Men as well as those with higher incomes usually have more credit cards than women and those with lower incomes.

A look into digital wallets also shows that 64% of respondents said they had installed an app with an integrated payment system on their phones (e.g. iTunes, PayPal, SBB Mobile App), with those under the age of 45 having considerably more of these apps. Furthermore, just under one in three respondents (32%) say they have one or more payment apps (e.g. Apple Pay, PayPal, Twint) on their smartphone, with the average person installing 1.2 of these apps.

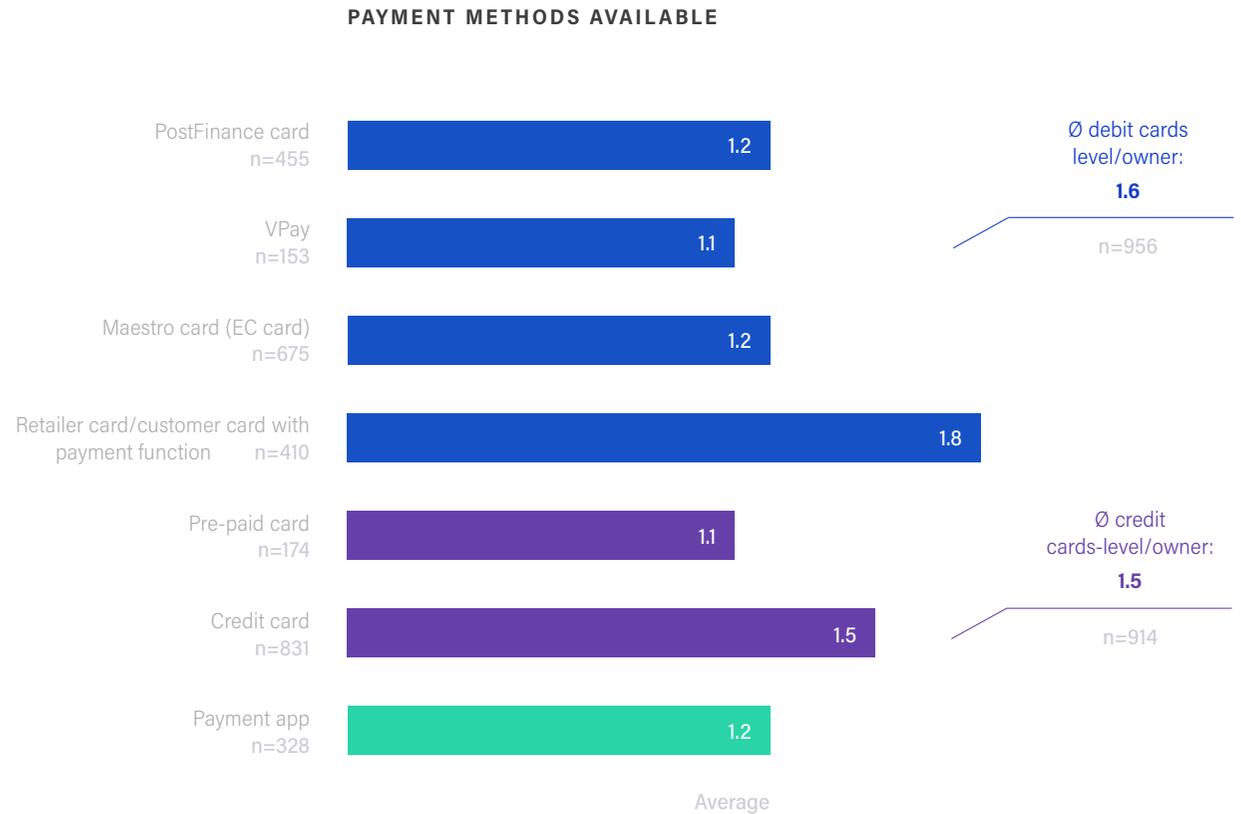


Fig. 6

Question: Which of the listed conventional methods do you personally own? Please indicate the respective number.

(Based on forms of payment that the respondents know; only the owner of the corresponding payment method)

V. Criteria for choosing a payment method

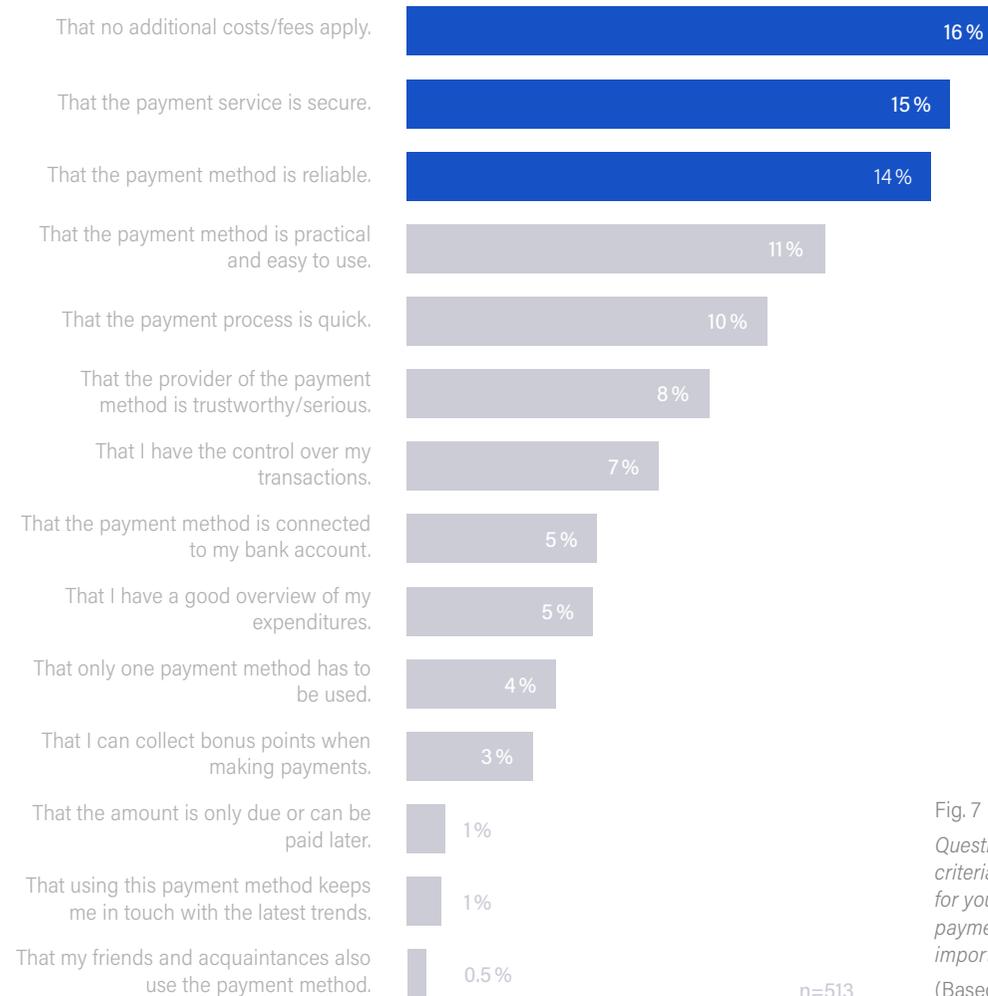
As simple as deciding on a payment method may seem, each payment choice is the result of a more or less extensive decision-making process. Depending on the situation and person, different factors play a role, all of which influence the choice and help or hinder the process of selecting a certain form of payment.

As this process is often an unconscious and automated one, people usually find it difficult to identify what is important to them when choosing a payment method, or they often find all or almost all of the criteria important. For this reason, direct questions about the relevance of certain criteria are usually not very effective, since the resulting responses do not allow for a differentiated assessment.

In order to collect information about the respondents' real preferences, the study implemented a special procedure to measure respondents' preferences (a so-called MaxDiff analysis), enabling a derivation of relative importance based on the evaluation of several different criteria stemming from experimentally compiled sets.

Top 3: Percentage of "most important factors"

FACE-TO-FACE BUSINESS



n=513

Fig. 7
Question: Which of the listed criteria is most important for you when choosing your payment and which is the least important?

(Based on all respondents)

V. CRITERIA FOR CHOOSING A PAYMENT METHOD

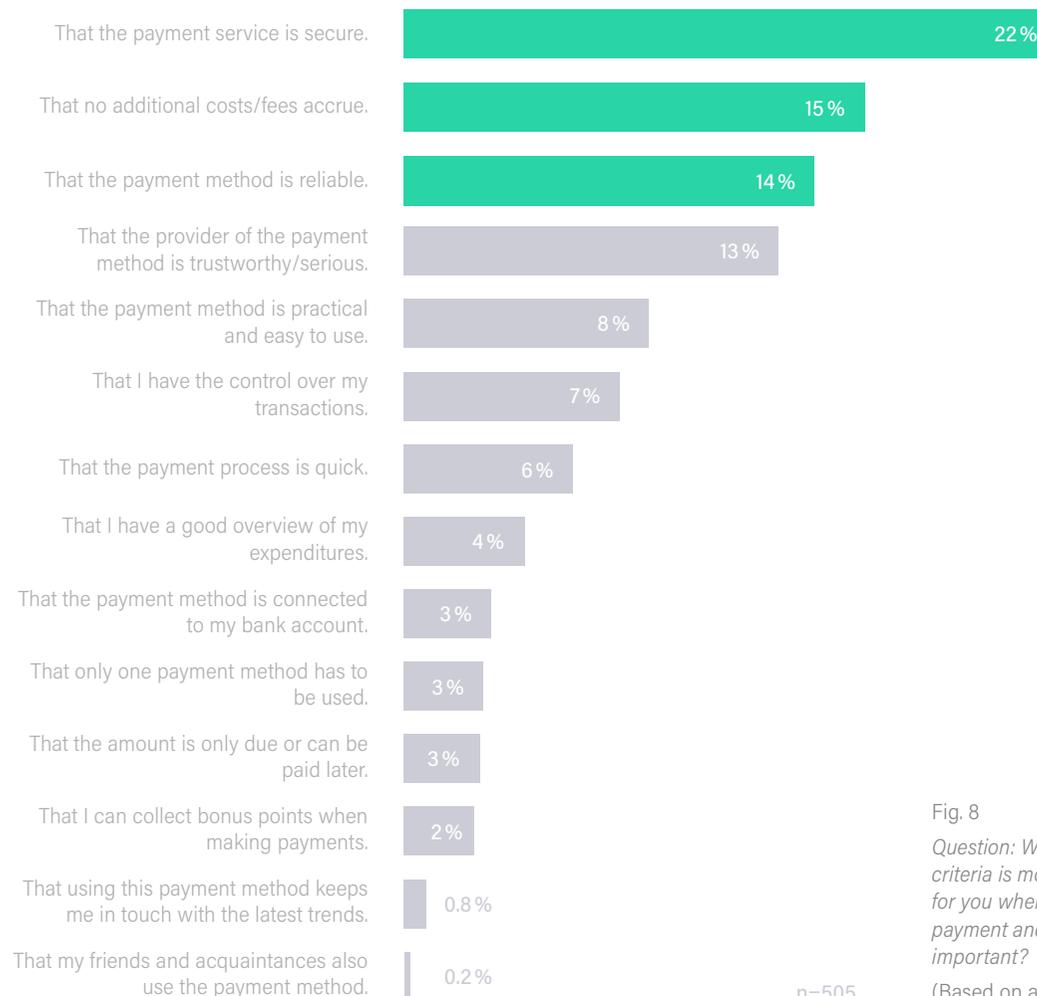
As the analysis shows, the most important criterion when choosing a form of payment for brick-and-mortar retail (face-to-face business) is that no extra fees apply, followed closely by security and reliability (cf. Fig. 7).

Even when making payments online (distance business), these three criteria are the most important driving forces behind choosing a payment method; in contrast to face-to-face business, security is by far the most important criterion. A close second is the idea that no additional costs accrue, followed by the reliability of the payment method (cf. Fig. 8).

A less relevant factor is that friends and acquaintances also use the respective form of payment and that it keeps them in touch with trends. This results in the conclusion that payment methods are generally not based on social norming. In comparison, bonus programs, integrated payment solutions and time-delayed payments play less important roles.

Top 3: Percentage of “most important factors”

DISTANCE BUSINESS



n=505

Fig. 8

Question: Which of the listed criteria is most important for you when choosing your payment and which is the least important?

(Based on all respondents)

VI. Payment behaviour

Different payment types

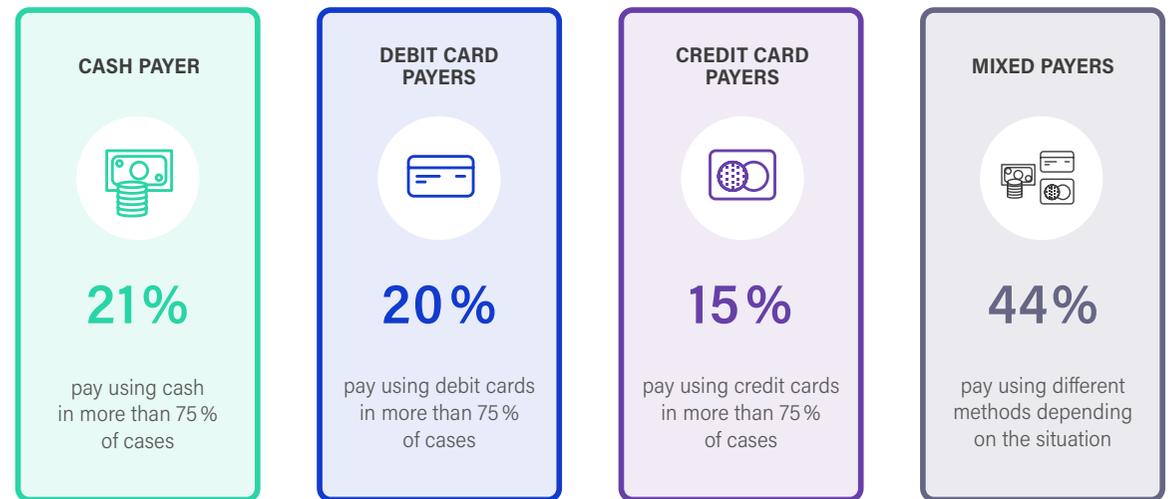
The payment market is very heterogeneous. There are many different payment processes and providers, at the same time, however, there is a broad spectrum of diverse user preferences. Having said that, those who use only cash or credit cards are an exception; a large number of people are mixed payers and prefer a variety of payment options, depending on the situation and amount due (cf. Fig. 9).

The "typical" cash payer is generally female, over 45 years old, values security and has a traditional mindset. She is sceptical of change (e.g. new forms of payment) and only uses new technologies after they have proved themselves.

Debit card users are likewise usually female. They are often averse to risk and appreciate the familiar, but are more open to new options than cash payers.

The classic credit card payer is male, over 30 years old, has a good level of education and a higher income. He is quite performance-oriented, a risk taker and likes to try new things.

Cash and credit card payers in particular are strong proponents of their preferred form of payment. They award much more positive ratings than for the other payment types. Debit card payers do not show such a pronounced preference.



n=832

Fig. 9

VI. PAYMENT BEHAVIOUR

Use of different payment methods

The analysis shows that while cash accounts for 49 % of total transactions, it is still the most widely used means of payment (especially in the 45-and-over age group); in regard to turnover, cash transactions (20 %) lag behind online transfers (29 %) and debit card payments (25 %) (cf. Table 2).

Aside from cash payment, the survey responses show that online transfers are by far the most commonly used payment method. Ninety-four percent (94 %) of the respondents stated that they have used this method (cf. Fig. 10). Compared to German-speaking and Italian-speaking Switzerland, online transfers in Western Switzerland account for a much larger share of turnover.

Card payments are also widely used. Ninety-one percent (91 %) of respondents use a debit card; 83 % a credit card. Retail cards are used by 35 % of all respondents. Debit cards are used in a conventional way (i.e. not contactless) in the French-speaking and Italian-speaking regions of Switzerland; the percentage of the value of the transactions in German-speaking Switzerland is comparatively higher, however.

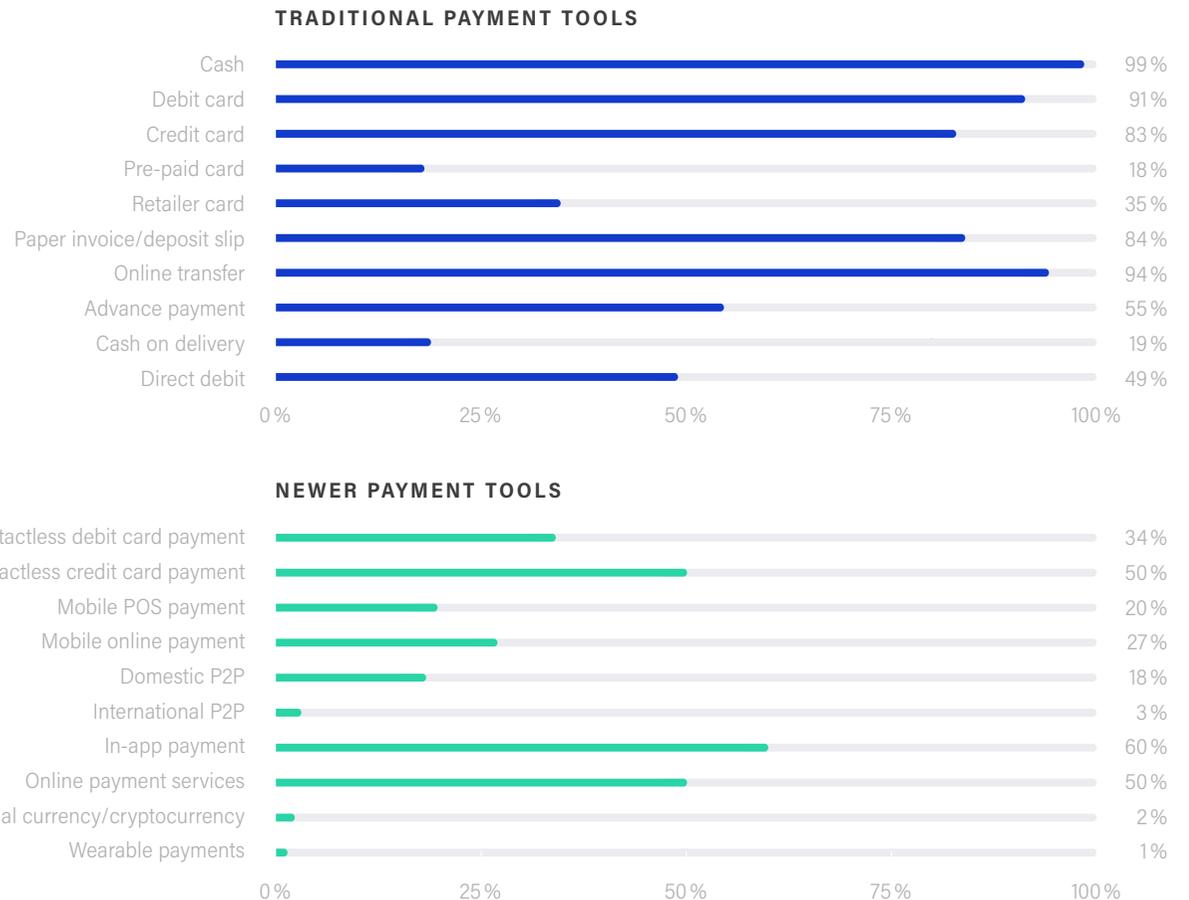
At the same time, the percentage and value of conventionally used debit cards is clearly higher among females than males; conversely, the percentage of credit card payments is higher among men than women.

Results are mixed in terms of newer forms of payment: Due to the increasing importance of e-commerce, specialised Internet payment methods such as PayPal, Sofortüberweisung or Twint have become more relevant in recent years. More than 50 % of the respondents claim to use such methods from time to time.

Contactless payment has become equally common. Contactless credit card payment is already in use by half

of the respondents. Contactless debit card payment is also on the rise; due to the limited circulation of debit cards that offer it (at the end of 2017, 51 % of all debit

cards in circulation were equipped with contactless function), this payment method is still lagging behind, with usage at 34 % (cf. Fig. 10).



n=1018

Fig. 10

Please indicate which of the listed payment methods / payment types you use.

(Based on all respondents)

VI. PAYMENT BEHAVIOUR

Based on the current data and the development so far, the expectation is, however, that as the number of contactless cards increases, the use of contactless debit cards will overtake contactless credit cards within one or two years.

Nonetheless, at the moment mobile payment methods are still struggling for acceptance. Although three out of five people (60 %) are familiar with in-app payments, other forms of mobile payment are still used relatively cautiously (cf. Fig. 9). Every fifth respondent (20 %) uses mobile payment in shops (e.g. Apple Pay, Samsung Pay, Twint); online mobile payment (e.g. PayPal, Twint) is still somewhat higher at 27 %. Eighteen percent (18 %) currently use peer-to-peer solutions such as PayPal or Twint to send and receive money. Reasons for lack of use were primarily—from the respondents' perspective—insufficient security and lack of added value in comparison to conventional forms of payment.

Contextually speaking, it should be noted that, according to the online survey, general information regarding the use of new payment methods does not correspond to the

PAYMENT METHODS BASED ON TURNOVER AND THE NUMBER OF TRANSACTIONS

according to journal entries

Payment method	Distribution according to turnover		Distribution according to number of transactions		Mid-price transaction
	Turnover in CHF	Share of turnover in %	Number of transactions	Share of transactions in %	Median
Cash	90,716.42	20.1	3,827	48.8	10.20
Conventional debit card	102,360.06	22.7	1,359	17.3	29.70
Contactless payment with debit card	12,090.86	2.7	408	5.2	15.28
Conventional credit card	52,476.33	11.6	655	8.3	44.01
Contactless payment with credit card	17,833.94	4.0	497	6.3	16.28
Pre-paid card	1,000.28	0.2	56	0.7	7.59
Retailer card/customer card	6,821.65	1.5	163	2.1	18.02
On account	11,383.76	2.5	65	0.8	104.04
Online transfer (online banking)	132,657.53	29.4	332	4.2	135.56
Advance payment	2,740.02	0.6	29	0.4	6.66

Table 2



VI. PAYMENT BEHAVIOUR

effective usage as stated in the journal data. The reason for this is that the online survey essentially gauges one-time use according to the self-assessment of the respondents; the journal data, however, also takes into consideration how frequently these methods are used. Because new payment methods in particular are often used irregularly, the result is lower transaction and turnover percentages. Accordingly, the turnover percentage for contactless payment as stated in the journal data is just 7 %, with mobile payment at 1.4 %. This allows for the conclusion that new processes such as contactless or mobile payments do not yet play a significant role within the context of the entire market volume.

Innovative payment technologies such as “Wearables % or virtual currencies play almost no role in day-to-day use. Despite an intense media presence, they are still niche products that, as of yet, have not found their way into everyday payment processes.

Men, as well as people under 30, are generally more tech-savvy and use new forms of payment such as contactless or mobile payments much more frequently.

PAYMENT METHODS BASED ON TURNOVER AND THE NUMBER OF TRANSACTIONS

according to journal entries

Payment method	Distribution according to turnover		Distribution according to number of transactions		Mid-price transaction
	Turnover in CHF	Share of turnover in %	Number of transactions	Share of transactions in %	Median
Deposit at the post office counter	6,059.53	1.3	5	0.1	53.87
Direct debit (LSV)	2,320.33	0.5	16	0.2	40.81
Mobile payment at POS	2,908.06	0.6	110	1.4	14.14
Online mobile payment	1,271.27	0.3	18	0.2	31.58
Mobile P2P payment	396.95	0.1	10	0.1	12.63
In-app payment	1,879.9	0.4	132	1.7	8.94
Online payment services	4,183.00	0.9	38	0.5	75.44
Other	2,285.78	0.5	131	1.7	9.91
Sum	451,385.67	100.0	7,851	100.0	

Table 2

VI. PAYMENT BEHAVIOUR

Debit card

The popularity of the debit card is also reflected in its use—in comparison to the credit card it is used twice as much. In 2017, almost 820 million transactions were conducted with domestic debit cards; 95 % of these were domestic and 5 % took place abroad (cf. Fig. 11). From 2005 to 2017, the number of domestic debit card transactions tripled. In 2017, contactless debit card payments accounted for 12 % of face-to-face payments on the domestic market (cf. Fig. 12).

In 2017, Swiss debit cards made about CHF 48 billion in payments—about CHF 45 billion (or 93 %) of that was domestic and about CHF 3 billion (or 7 %) was made abroad (cf. Fig. 11). Turnover has doubled since 2005. In 2017, 5 % of domestic debit card turnover in Switzerland was made at in-store points of sale using a contactless card (cf. Fig. 14).

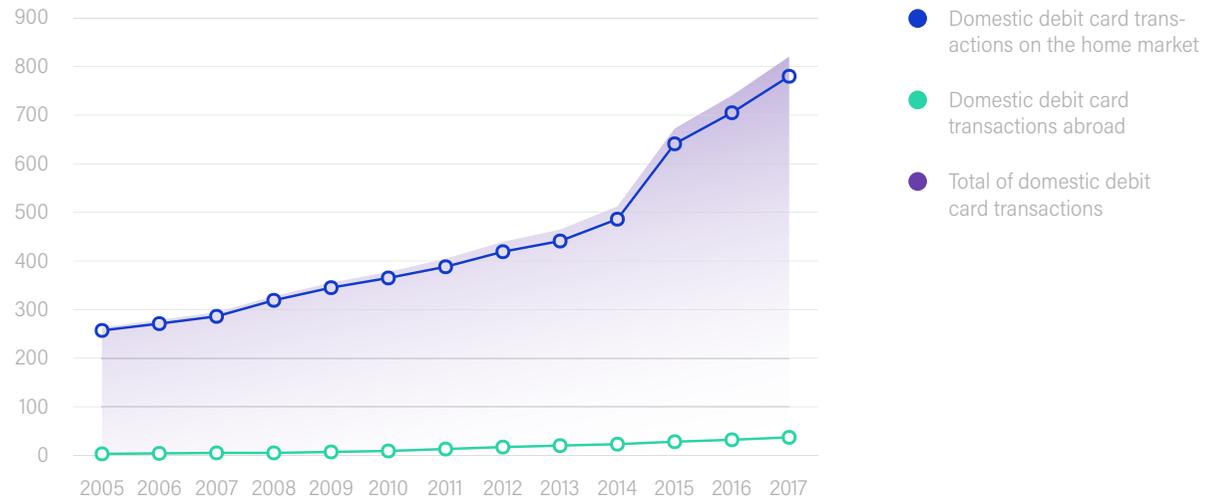
On average, each person in Switzerland made 117 debit card transactions in 2017—of those, 112 (95 %) were domestic and 5 (5 %) of them took place abroad (cf. Fig. 15). From 2005 to 2017, per capita debit card use almost tripled.

Annual debit card turnover per capita for adult persons amounted to CHF 6,849 in 2017 (cf. Fig. 16). Since 2005, per capita expenditure has almost doubled.

DEVELOPMENT OF TRANSACTION FREQUENCY FOR DOMESTIC DEBIT CARDS

Fig. 11

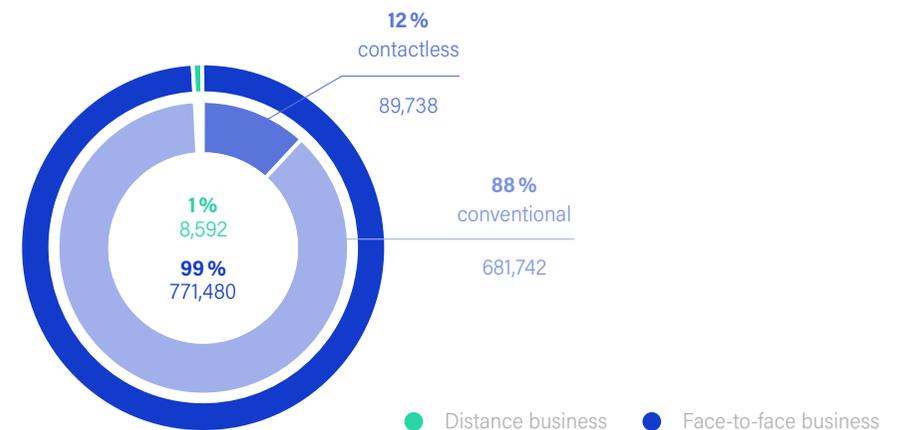
Analysis of SNB data – in millions



DEVELOPMENT OF TURNOVER FOR DOMESTIC DEBIT CARDS

Fig. 12

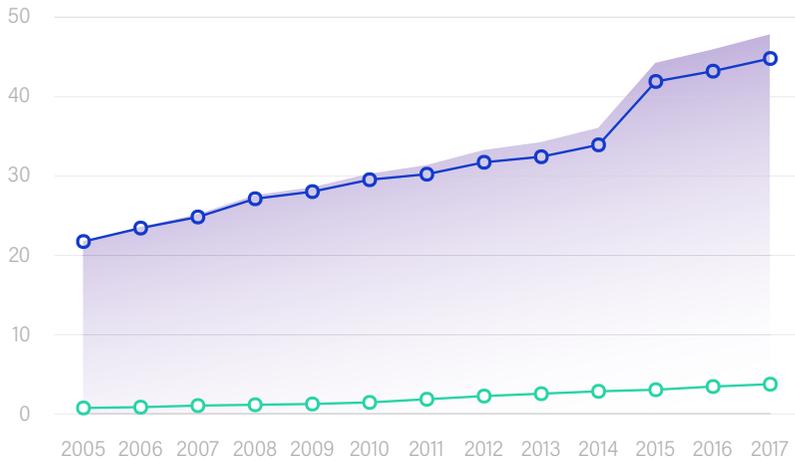
Analysis of SNB data – in millions



VI. PAYMENT BEHAVIOUR

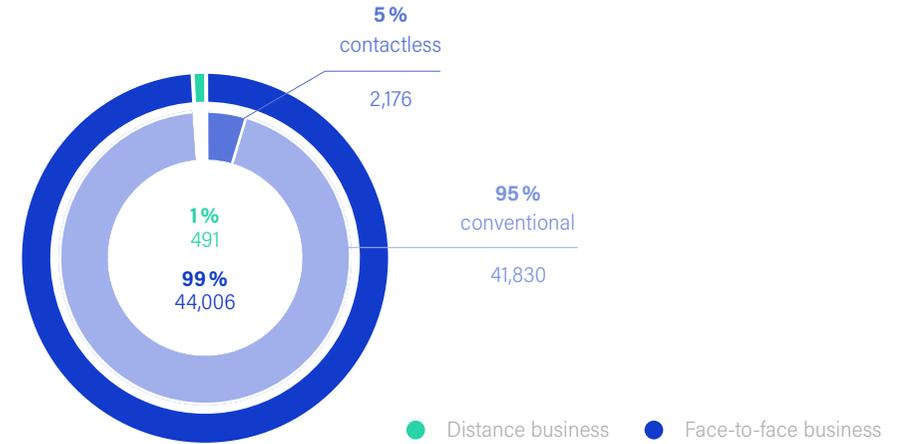
DEVELOPMENT OF TURNOVER FOR DOMESTIC DEBIT CARDS Fig. 13

Analysis of SNB data – in billions CHF



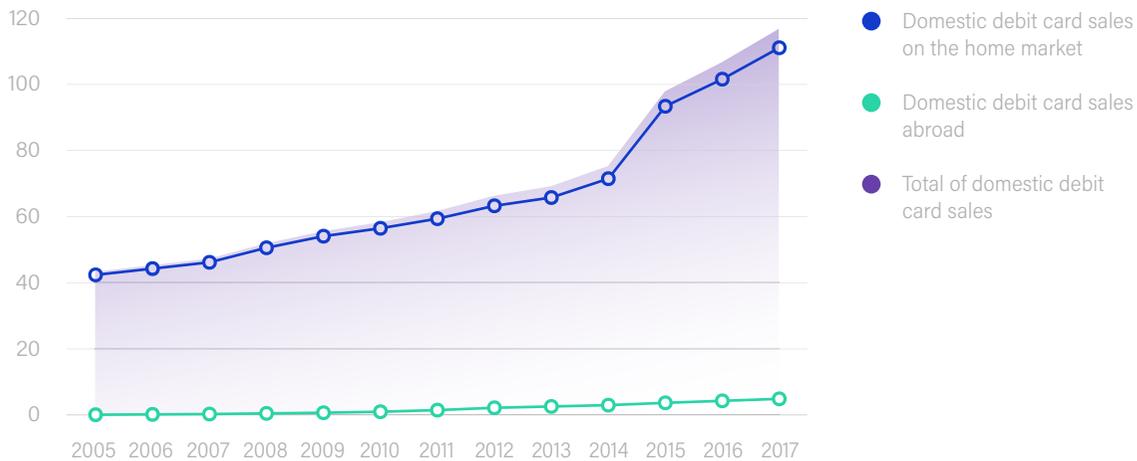
TURNOVER OF DOMESTIC CONTACTLESS DEBIT CARDS ON THE DOMESTIC MARKET IN 2017 Fig. 14

Analysis of SNB data – in millions CHF



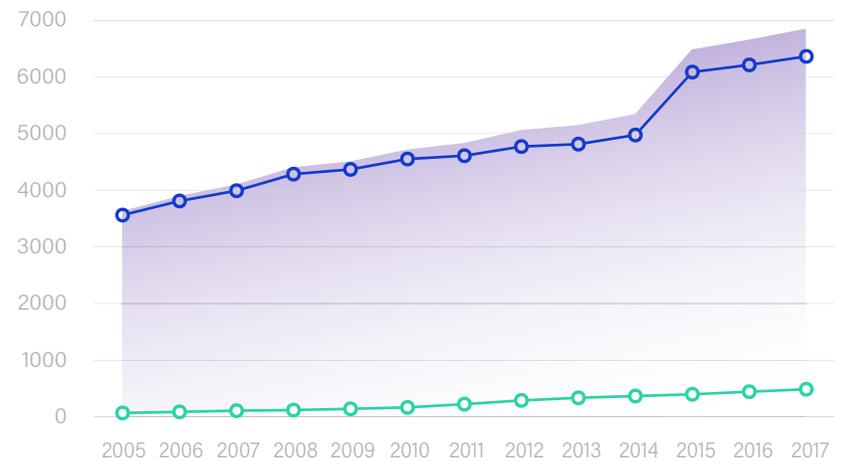
NUMBER OF DEBIT CARD TRANSACTIONS PER CAPITA FOR THE ADULT POPULATION Fig. 15

Analysis of SNB data



ANNUAL DEBIT CARD TURNOVER PER CAPITA FOR THE ADULT POPULATION Fig. 16

Analysis of SNB data – in CHF



VI. PAYMENT BEHAVIOUR

Credit card

In 2017, almost 400 million transactions were conducted with domestic credit cards; 60 % of these were domestic and 40 % took place abroad (cf. Fig. 17). This amounts to almost half of the number of debit card transactions. One third of domestic face-to-face payments were made with contactless payments (cf. Fig. 18).

From 2005 to 2017, the number of domestic credit card transactions grew 270 %.

In 2017, Swiss credit cards made about CHF 40 billion in payments—around CHF 21 billion (or 53 %) of that was domestic and about CHF 19 billion (or 47 %) took place abroad (cf. Fig. 19). Turnover has almost doubled since 2005. In 2017, 14 % of domestic credit card turnover in Switzerland was made at in-store points of sale using a contactless card (cf. Fig. 20).

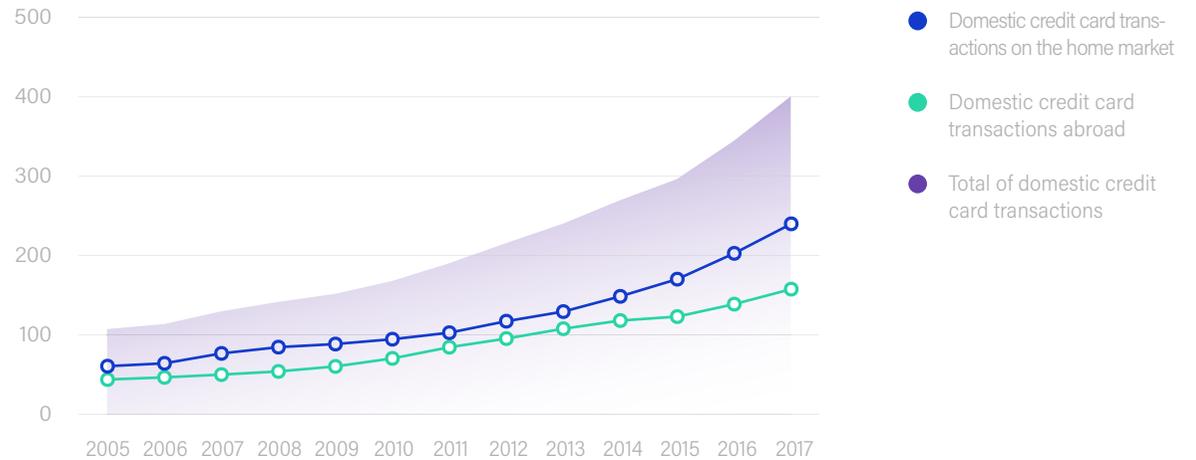
On average, each adult person in Switzerland made 57 credit card transactions in 2017—of those, 35 (60 %) were domestic and 23 (40 %) took place abroad (cf. Fig. 21). In 2017, per capita domestic credit card use amounted to just half of debit card use. From 2005 to 2017, per capita credit card use more than tripled.

Annual credit card turnover per capita for adult persons amounted to CHF 5,766 in 2017 (cf. Fig. 22).

DEVELOPMENT OF TRANSACTION FREQUENCY FOR DOMESTIC CREDIT CARDS

Fig. 17

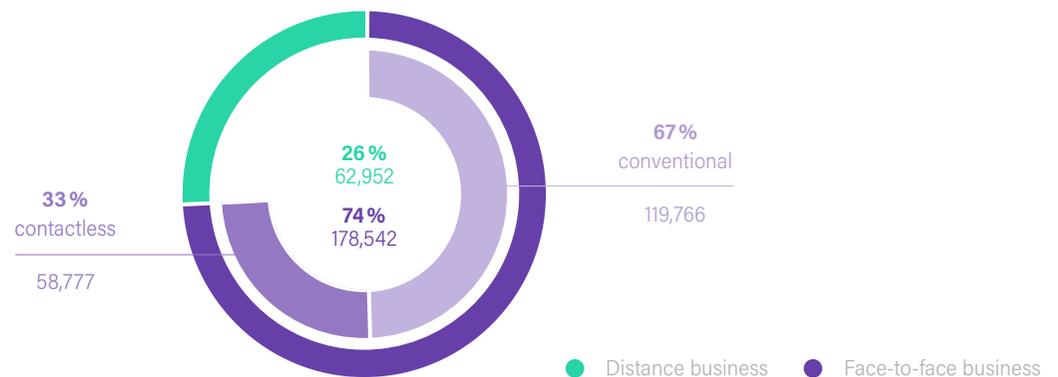
Analysis of SNB data – in millions



TRANSACTION FREQUENCY OF DOMESTIC CONTACTLESS CREDIT CARDS IN 2017 ON THE DOMESTIC MARKET

Fig. 18

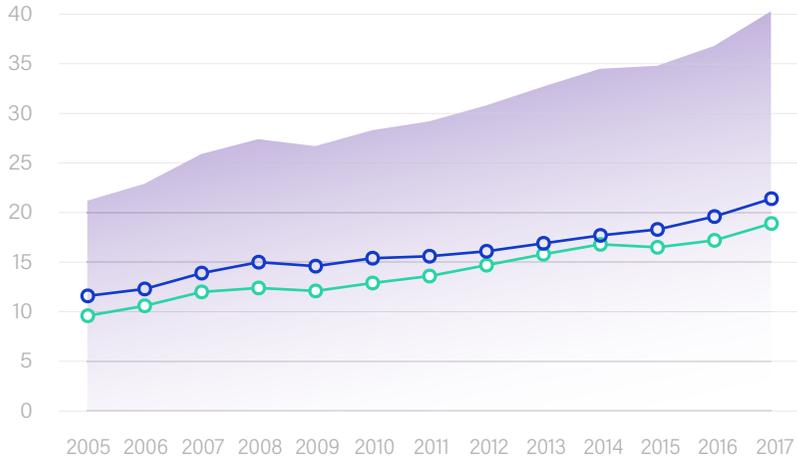
Analysis of SNB data – in millions



VI. PAYMENT BEHAVIOUR

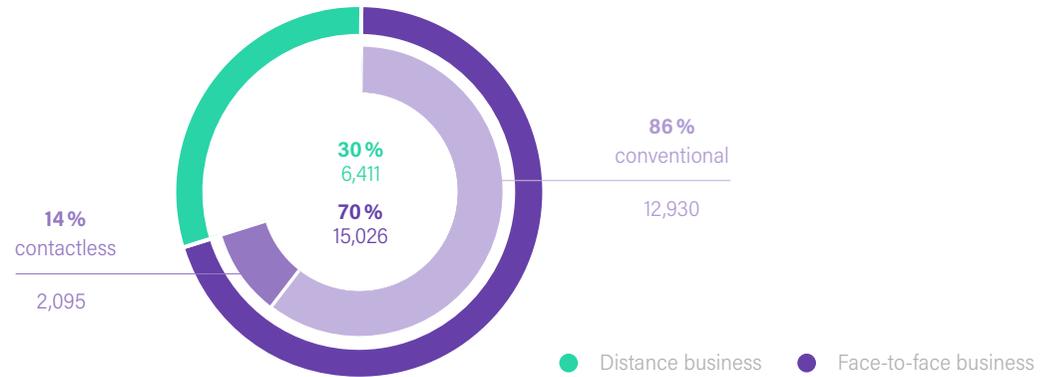
DEVELOPMENT OF TURNOVER FOR DOMESTIC CREDIT CARDS Fig. 19

Analysis of SNB data – in billions CHF



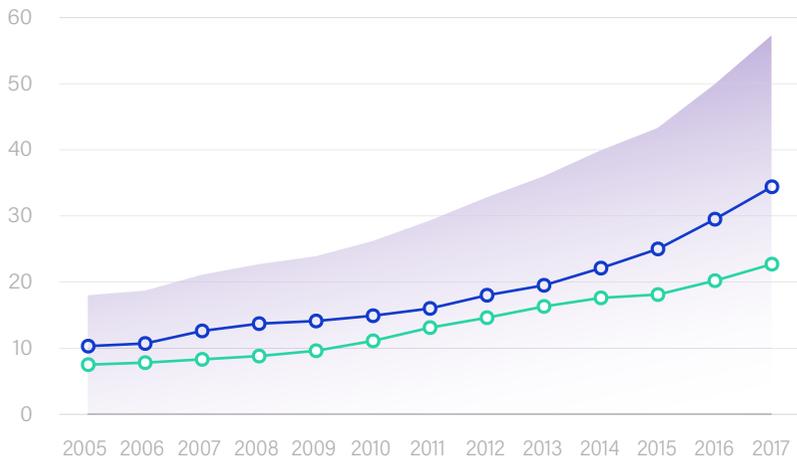
TURNOVER OF DOMESTIC CONTACTLESS CREDIT CARDS ON THE DOMESTIC MARKET IN 2017 Fig. 20

Analysis of SNB data – in millions CHF



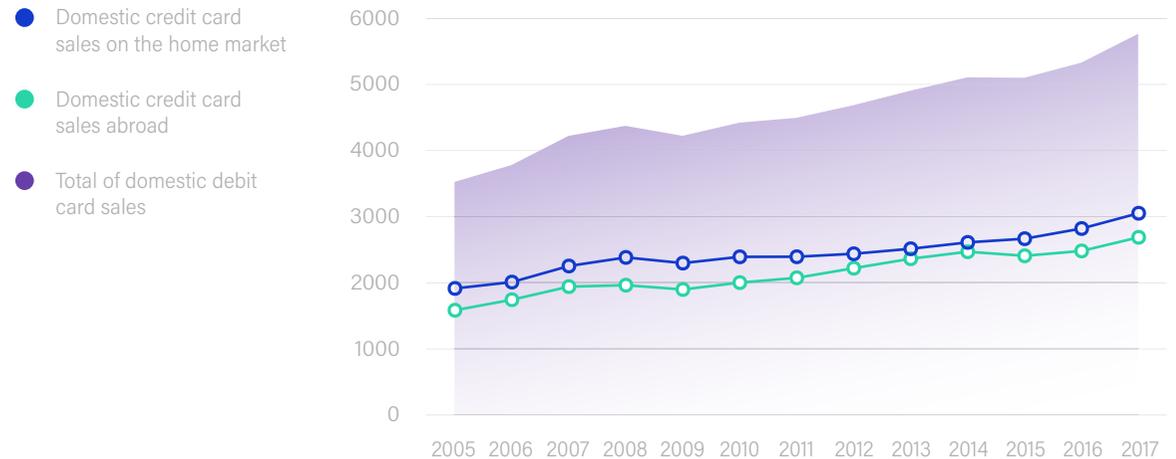
NUMBER OF CREDIT CARD TRANSACTIONS PER CAPITA FOR THE ADULT POPULATION Fig. 21

Analysis of SNB data



ANNUAL CREDIT CARD TURNOVER PER CAPITA FOR THE ADULT POPULATION Fig. 22

Analysis of SNB data – in CHF



VI. PAYMENT BEHAVIOUR

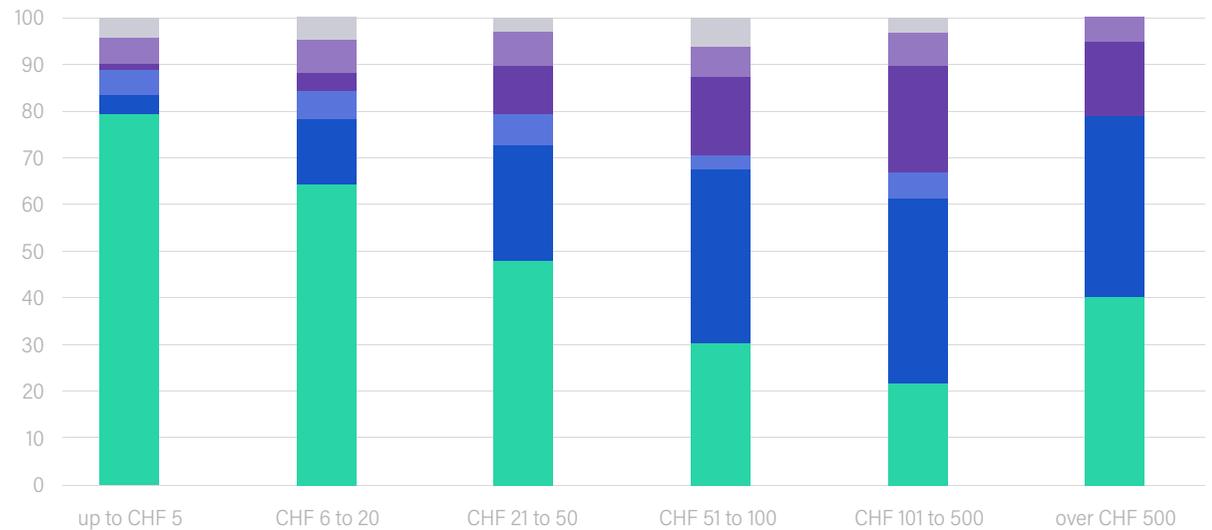
Payment behaviour depends on the payment amount

As the analysis of the payment journal entries shows, the total of the amount to be paid has a considerable influence on the choice of the payment method, both in face-to-face and distance business (cf. Figs. 23 to 26). Accordingly, cash is by far the most common form of payment in brick-and-mortar retail for amounts up to CHF 50. A large part of cash transactions (71%) account for small sums of up to CHF 20, and of this, almost one-third (27%) represent the smaller sums of up to CHF 5 (cf. Figs. 23 and 24).

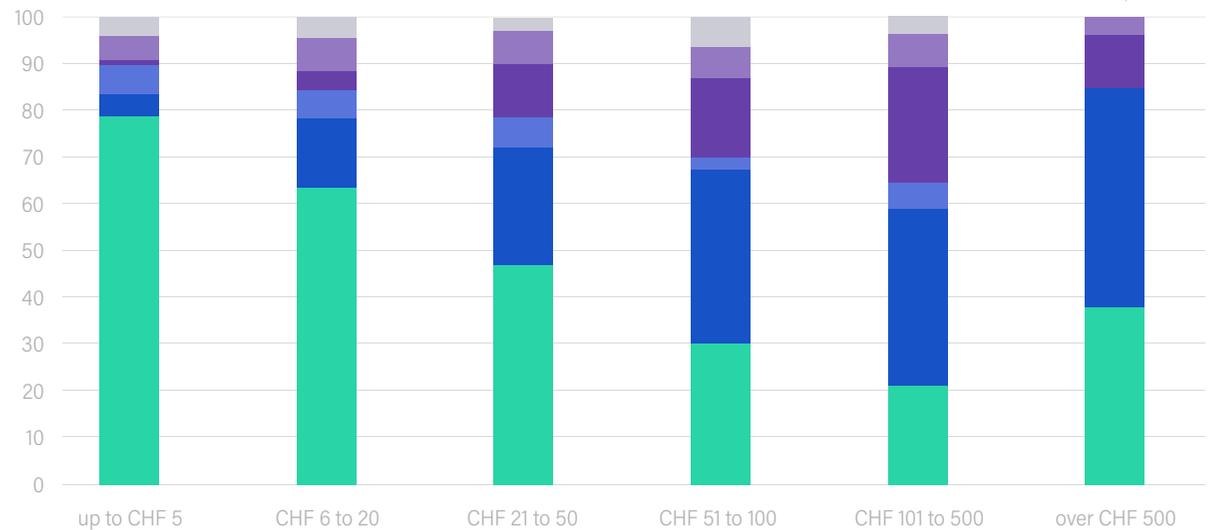
Card payment is generally used at the POS for amounts over CHF 5. While conventional debit cards are increasingly being used for purchases between CHF 6 and CHF 20, credit cards are usually only used for purchases of CHF 20 or more. Having said this, the total price has no substantial influence on contactless payment when deciding between debit and credit cards.

- Other payment methods
- Contactless payment with credit card
- Conventional credit card
- Contactless payment with debit card
- Conventional debit card
- Cash payment

PAYMENT METHOD ACCORDING TO THE AMOUNT DUE: FACE-TO-FACE BUSINESS ON THE DOMESTIC MARKET Fig. 23
Share of transactions (in%), according to journal Basis: 6,788



Share of turnover (in%), according to journal Fig. 24
Basis: 252,746 CHF

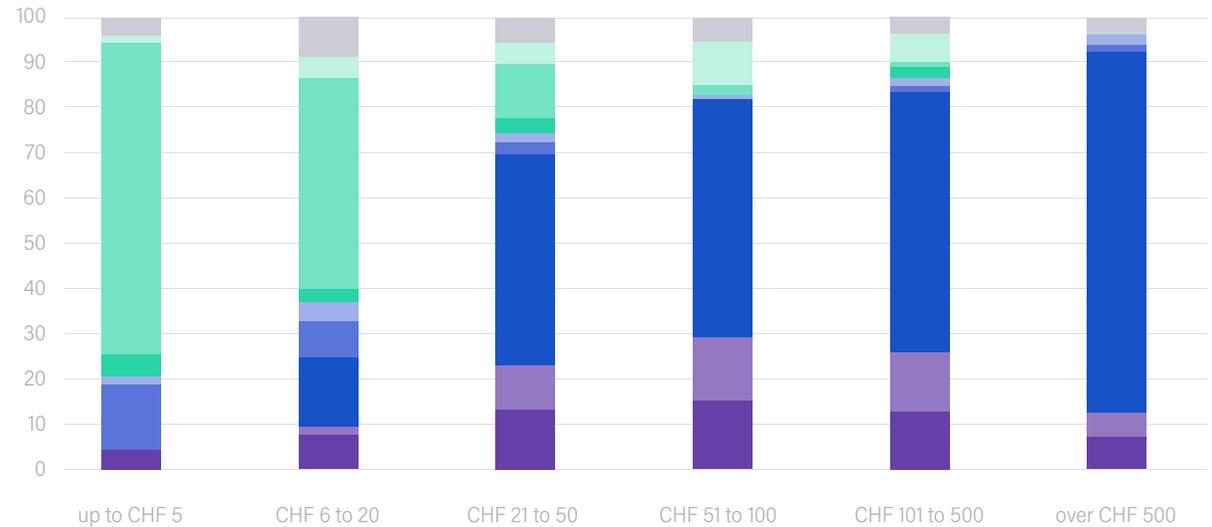


VI. PAYMENT BEHAVIOUR

The transition threshold from cash to card transactions—or the point at which the percentage of card payments outweighs cash transactions—is in the area between CHF 20 and CHF 50, where the percentage of card payments increases relative to the amount to be paid (up to CHF 500). For amounts that exceed this, cash once again becomes more relevant.

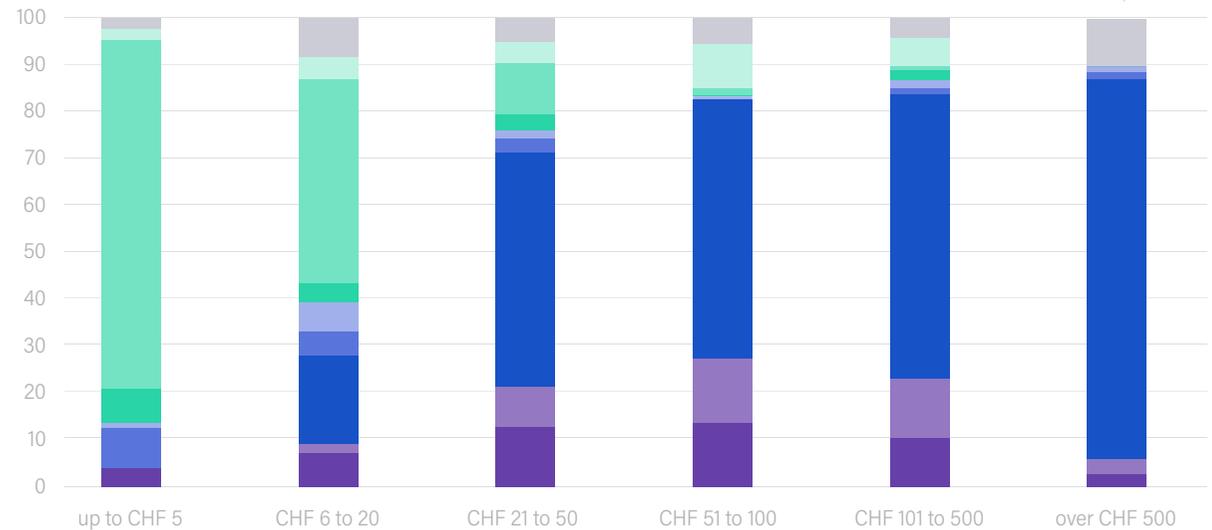
For distance business, in-app payments are more prevalent for small transactions of up to CHF 20 (cf. Figs. 25 and 26). Amounts that exceed this threshold are mainly paid by online bank transfer. When these amounts increase in value, credit cards and paper invoices become more important; based on the subjective assessment of respondents, a downward trend for paper invoices in particular can be expected in the future.

PAYMENT METHOD BASED ON AMOUNT DUE: DISTANCE BUSINESS ON THE DOMESTIC MARKET Fig. 25
Transaction share (in %), according to journal Basis: 751



Transaction share (in %), according to journal Fig. 26
Basis: 181,658 CHF

- Other payment methods
- Online payment services
- In-app payment
- Mobile online payment
- Direct debit
- Advance payment
- Online transfer
- Invoice
- Credit card



VI. PAYMENT BEHAVIOUR

Payment behaviour depends on the situation

The choice of payment also depends on the situation as well as the place or purpose of payment.

Quantitatively speaking, the majority (90%) of domestic transactions are focused on face-to-face business; distance business accounts for only 10% of all transactions. In terms of sales, however, the differences are much smaller: Because of the relatively high turnover involved, distance business accounts for a sizeable 42% of the total sales volume (cf. Fig. 27).

In brick-and-mortar retail, debit card transactions carry the largest share of the turnover at 37%, followed closely by cash transactions at 36% (cf. Table 3). This shows the continued importance of cash in face-to-face business.

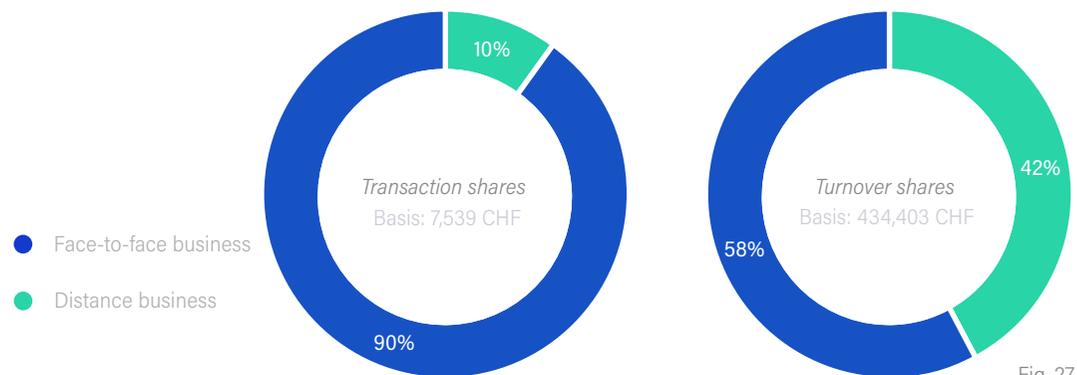


Fig. 27

Face-to-face business

PAYMENT METHODS BASED ON TURNOVER AND THE NUMBER OF TRANSACTIONS

according to journal entries on the domestic market

Payment method	Distribution according to turnover		Distribution according to number of transactions		Mid-price transaction
	Turnover in CHF	Share of turnover in %	Number of transactions	Share of transactions in %	Median
Cash	90,716.42	35.9	3,827	56.4	10.20
Conventional debit card	82,629.26	32.7	1,291	19.0	29.86
Contactless payment with debit card	11,596.15	4.6	389	5.7	15.45
Conventional credit card	40,933.36	16.2	524	7.7	45.63
Contactless payment with credit card	16,844.21	6.7	458	6.7	16.02
Pre-paid card	896.37	0.4	51	0.8	7.86
Retailer card/customer card	6,377.76	2.5	146	2.1	19.21
Mobile payment at POS	2,752.11	1.1	102	1.5	14.07
Sum	252,745.64	100.0	6,788	100.0	

Table 3

VI. PAYMENT BEHAVIOUR

Distance retail is overwhelmingly paid for via online transfer (cf. Table 4.). Of all payments made, 44% are managed using either online transfer or e-banking, which represents 73% of turnover. Credit cards are used for 11% of payments made (turnover share of 6%); another 9% is paid on account (turnover share of 6%).

Distance business

PAYMENT METHODS BASED ON TURNOVER AND THE NUMBER OF TRANSACTIONS

according to journal entries on the domestic market

Payment method	Distribution according to turnover		Distribution according to number of transactions		Mid-price transaction
	Turnover in CHF	Share of turnover in %	Number of transactions	Share of transactions in %	Median
Debit card	8,339.00	4,6	21	2.7	13.51
Credit card	10,154.73	5,5	81	10.9	69.38
Pre-paid card	73.15	0,0	1	0.1	8.32
Retailer card/customer card	198.64	0,1	3	0.3	71.75
On account	11,383.76	6,3	65	8.6	104.04
Online transfer (online banking)	132,657.53	73,0	332	44.3	135.56
Advance payment	2,740.02	1,5	29	3.8	6.66
Deposit at the post office counter	6,059.53	3,3	5	0.7	53.87
Direct debit (LSV)	2,320.33	1,3	16	2.1	40.81
Online mobile payment	1,271.27	0,7	18	2.4	31.58
Mobile payment P2P	396.95	0,2	10	1.4	12.63
In-app payment	1,879.90	1,0	132	17.6	8.94
Online payment services	4,183.00	2,3	38	5.1	75.44
Sum	181,657.81	100.0	751	100.0	

Table 4

VI. PAYMENT BEHAVIOUR

Place of payment

Table 5 provides an overview of the distribution of turnover and transactions depending on the payment location or purpose.

With regard to the choice of payment method, card payments dominate in high-turnover retail.

In comparison to other forms of payment, cash is much more commonly used in restaurants and bakeries, at external sales points (kiosks and take-aways) as well as at machines.

The classic credit card is overwhelmingly being used in retail for longer-term purchases, at petrol stations, in restaurants and while travelling.

In the mail order business, bank transfers are quite common for individual payments as well as for donations and payments to public authorities.

With a turnover share of 20%, the invoice has a comparatively high value, particularly for mail orders.

In-app payments are mainly pertinent to the areas of public transportation and the mobility sector

PAYMENT LOCATION BASED ON TURNOVER AND THE NUMBER OF TRANSACTIONS

according to journal entries on the domestic market

Place of payment	Distribution according to turnover		Distribution according to number of transactions		Mid-price transaction
	Turnover in CHF	Share of turnover in %	Number of transactions	Share of transactions in %	Median
Retail for daily needs	119,053.13	26.4	2,979	37.9	17.92
Personal clothing	15,051.76	3.3	164	2.1	51.98
Pharmacy/drugs	6,222.27	1.4	106	1.3	24.79
Retail for longer-term purchases	34,432.21	7.6	262	3.3	44.12
Petrol station/petrol	12,191.00	2.7	284	3.6	16.31
Kiosk, bakery	5,024.85	1.1	485	6.2	7.29
Restaurant	31,604.37	7.0	897	11.4	17.77
Cafe, pub, snack bar, fast-food restaurant, take-away, delivery services, bar, club	11,764.68	2.6	920	11.7	8.33
Leisure activities/entertainment	20,349.67	4.5	302	3.9	27.51
Service provider (e.g. hairdresser)	23,336.76	5.2	171	2.2	51.77
Hotel, guest house	4,861.38	1.1	19	0.2	131.00

Table 5



VI. PAYMENT BEHAVIOUR

Side note: Recurring expenses

Every household has recurring expenses, such as the cost of rent or mortgage interest, utilities, telephone/TV/Internet costs, insurance premiums and taxes. Most of these bills are currently being paid via online transfer, followed by e-billing. The direct debit system (LSV) plays an important role, especially for paying telephone/TV/Internet expenses, health insurance premiums as well as rent and mortgage payments. Generally speaking, the standing order is of less importance and is mainly relevant for rental and mortgage payments.

Even if the numbers for its use are relatively low compared to the other payment methods, payments made at the post office counter still represent a percentage of payments that cannot be overlooked.

PAYMENT LOCATION BASED ON TURNOVER AND THE NUMBER OF TRANSACTIONS

according to journal entries on the domestic market

Place of payment	Distribution according to turnover		Distribution according to number of transactions		Mid-price transaction
	Turnover in CHF	Share of turnover in %	Number of transactions	Share of transactions in %	Median
Mobility, travel, parking, transportation	14,538.46	3.2	452	5.8	7.80
Vending machines (e.g. cigarettes, drinks/snacks)	441.39	0.1	132	1.7	1.91
Placing a mail order without Internet (e.g. catalogues, phone orders)	4,088.77	0.9	39	0.5	47.88
Bank transfers/cash payments for private transactions (e.g. babysitting, private teaching)	16,280.12	3.6	59	0.8	46.97
Personal budget (e.g. pocket money)	14,700.24	3.3	79	1.0	45.10
Spending/donations to charities	4,394.91	1.0	74	0.9	30.15
Payments to offices/public administrations (e.g. buses)*	55,639.69	12.3	84	1.1	75.77
Other	57,411.55	12.7	343	4.4	35.40
Sum	451,387.21	100.0	7,851	100.0	

Table 5

* The share of expenses for payments to offices and public authorities is above the expected value. It is to be expected that—despite

being informed in the instructions—respondents recorded recurring payments as transactions.

VII. A look into the future

New forms of payment

Contactless payments with credit and debit cards ("contactless payment") as well as mobile payment methods ("mobile payment") are among the newer forms of payment. As of 2007, credit cards began to gradually introduce the contactless function, with debit cards offering it across the board as of 2015. Currently, 94% of credit cards and 51% of debit cards issued in Switzerland are already equipped with the contactless function.

Of the 91% of respondents who use a debit card, 31% of them use the contactless function. Using the credit card's contactless function is even more popular: Of the 83% of respondents that use a credit card, 60% use the contactless function. Taking into account the distribution of credit and debit cards with the contactless function (penetration) according to SNB data, around two thirds of credit or debit card users use the contactless function; in other words, two out of three card holders use the contactless payment option when their credit or debit cards include this function.

Understanding mobile payment

Based on the respondents' statements, there is still no universal understanding of "mobile payment" (cf. Fig. 28). The term is most commonly associated with in-app payment functions and payments made with a mobile phone in a local shop (59%) each, as well as payments made online/in an online shop with a mobile phone (44%). Thirty-one percent (31%) think "mobile payment" is a domestic "peer-to-peer" payment. A relatively low number of people (12%) associate mobile payments with transfers made to private individuals abroad and about 10% associate it with "Wearables".

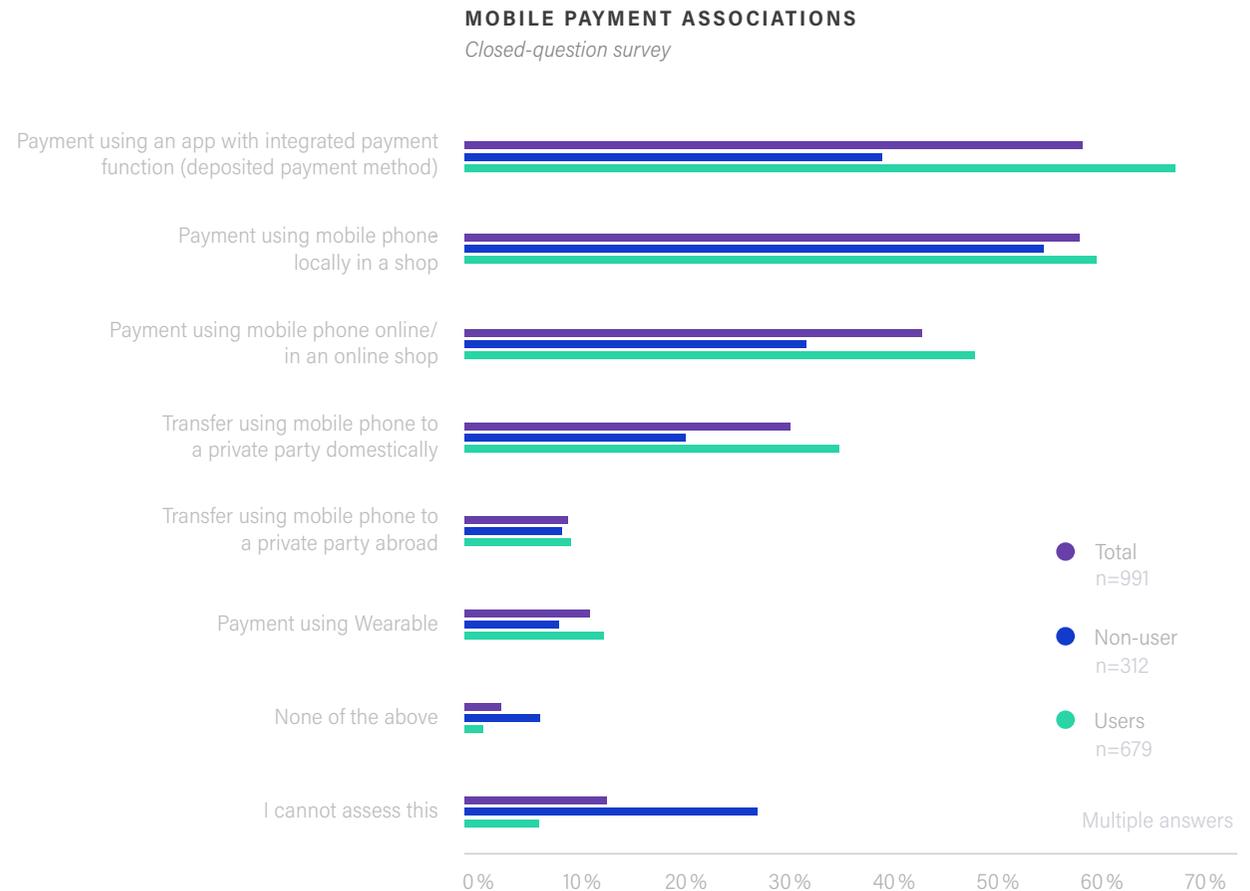


Fig. 28

Question: Which of the following payment situations do you generally associate with mobile payment?

(Based on respondents that claimed to be familiar with mobile payments)

VII. A LOOK INTO THE FUTURE

How users like the new payment forms

When asked how well they liked the new forms of payment, contactless payment received an average score of 3.5 out of 5 (cf. Fig. 29) and “mobile payment” an average of 3.0 and 3.7 (face-to-face and distance business, respectively) (cf. Figs. 30 and 31)—in other words, average reviews. Users rated contactless payment quite positively (average of 4.2), while ratings among non-users were more discriminating: 47% didn't like contactless payment or didn't like it very much, while 25% either liked it or liked it a lot. It is unsurprising to see that there is a similar attitude towards mobile payment. Users assess this payment method much more positively than non-users. This leads to a user average that is 1.3 points higher respectively. With an average of 3.7 points, online mobile payment clearly appeals to both users and non-users (cf. Fig. 31) much more than using mobile payment methods locally in shops (cf. Fig. 30).

Contactless payment is especially valued for its process speed, as well as for its practicality; its security draws some criticism, however. The picture for mobile payment is similar: its ease-to-use and time-saving qualities are what users value most. However, it draws criticism from respondents—much like its contactless payment counterpart—because of insufficient security.

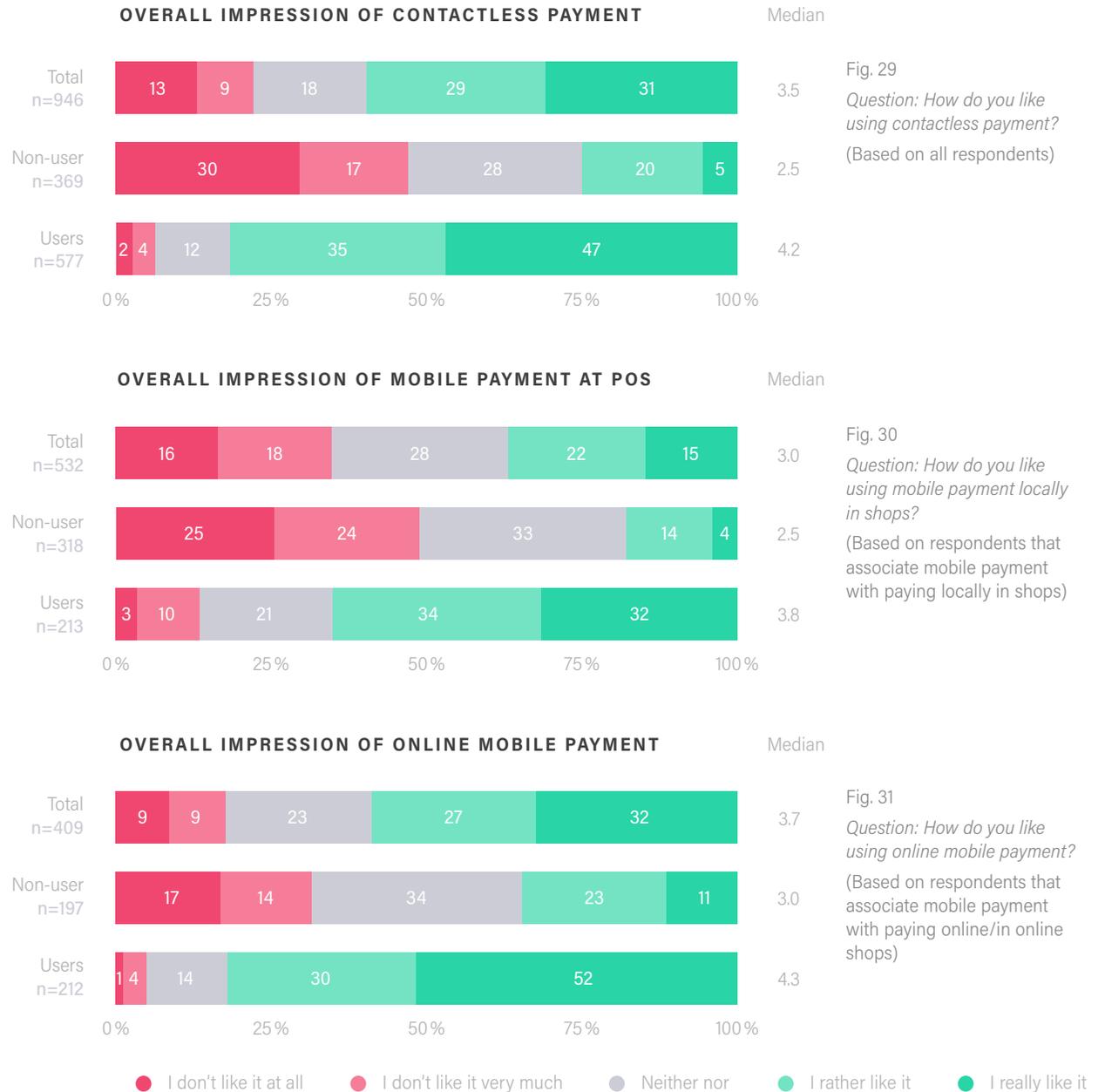


Fig. 29
Question: How do you like using contactless payment?
(Based on all respondents)

Fig. 30
Question: How do you like using mobile payment locally in shops?
(Based on respondents that associate mobile payment with paying locally in shops)

Fig. 31
Question: How do you like using online mobile payment?
(Based on respondents that associate mobile payment with paying online/in online shops)

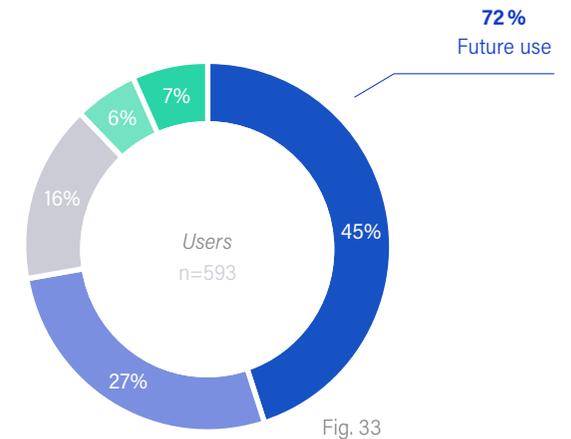
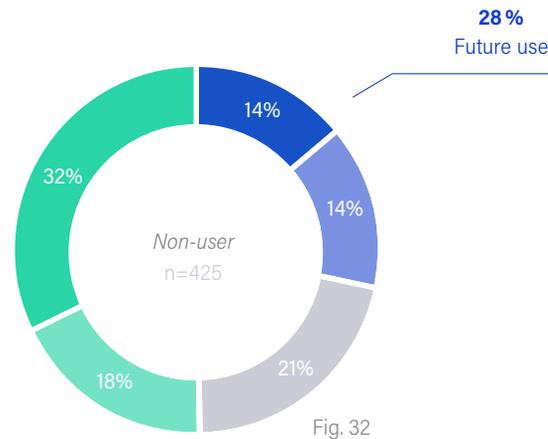
VII. A LOOK INTO THE FUTURE

Intended use of new payment methods

The potential for the use of contactless payment is particularly noteworthy amongst existing users: 72% of contactless users see it as likely or very likely that they will use this payment method even more in the future (cf. Fig. 33). For non-users, potential future use is only 28% (cf. Fig. 32).

Future use strongly depends on the design of the payment process. According to respondents, it is important to first improve security or introduce more control mechanisms (e.g. deactivation of the contactless function, immediate feedback, etc.).

FUTURE USER OF CONTACTLESS PAYMENT



FUTURE USE OF MOBILE PAYMENT AT POS

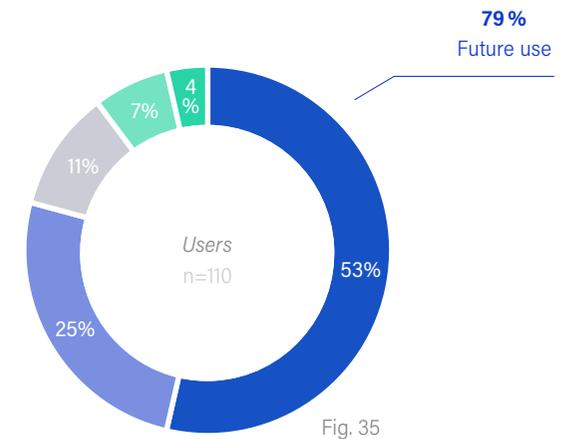
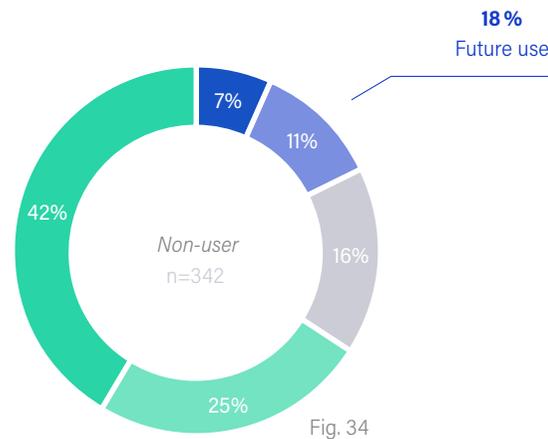


Fig. 32

Question: How likely do you think it is that you will use contactless payment within the next three years?

(Based on respondents who do not use contactless payment)

Fig. 33

Question: How likely do you think it is that you will use contactless payment (even more) within the next three years?

(Based on respondents that use contactless payment)

Fig. 34

Question: How likely do you think it is that you will use mobile payment locally in a shop within the next 3 years?

(Based on respondents that associate mobile payment with paying locally in shops, but do not use it)

Fig. 35

Question: How likely do you think it is that you will use mobile payment (even more) locally in a shop within the next three years?

(Based on respondents that associate mobile payment with paying locally in shops and also use it)

● very likely ● rather likely ● neither nor ● rather likely ● very likely

VII. A LOOK INTO THE FUTURE

Concerning mobile payment, the use potential is also great for existing users: 79 % of respondents say they would like to use mobile payment at the POS more in the future (cf. Fig. 35); for distance business, that number is a good 77 % (cf. Fig. 37). In regard to face-to-face business, the use potential for non-users is more modest. For non-users, only about 18 % think it is likely that they will use mobile payment locally in a shop within the next three years (cf. Fig. 34). In terms of distance business, it is nevertheless almost one in three (30 %) (cf. Fig. 36).

On the other hand, the future development of mobile payment is dependent on the basic conditions. For the respondents, criteria such as improved security measures as well as the expansion of acceptance for POS payments are important key factors behind future use.

FUTURE USE OF ONLINE MOBILE PAYMENT

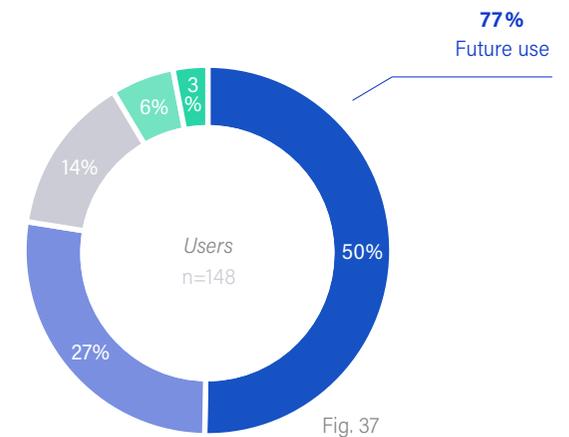
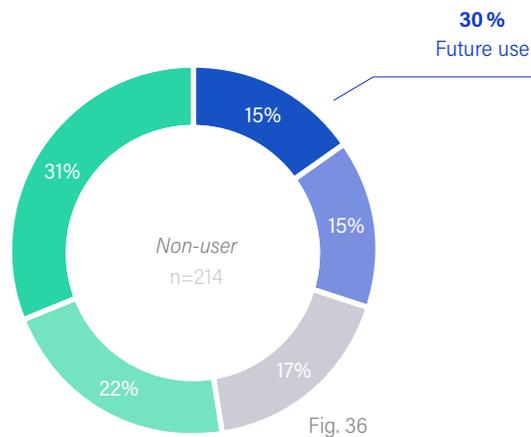


Fig. 36

Question: How likely do you think it is that you will use mobile payment in an online shop within the next three years?

(Based on respondents that associate mobile payment with paying online/in online shops, but do not use it)

Fig. 37

Question: How likely do you think it is that you will use mobile payment in an online shop (even) more within the next three years?

(Based on respondents that associate mobile payment with paying online/in online shops and also use it)

● very likely ● rather likely ● neither nor ● rather likely ● very likely

VII. A LOOK INTO THE FUTURE

When the respondents were asked which mobile payment providers they could think of spontaneously, most of the participants named "Twint" first. Apple Pay, PayPal and the SBB mobile app were also common answers, but a far cry from first place. The situation is similar in regard to memory-based reminders, where the differences are smaller: Twint is the most popular with 81% of responses, followed by the SBB mobile app with 79% and PayPal with 70% (cf. Fig. 38).

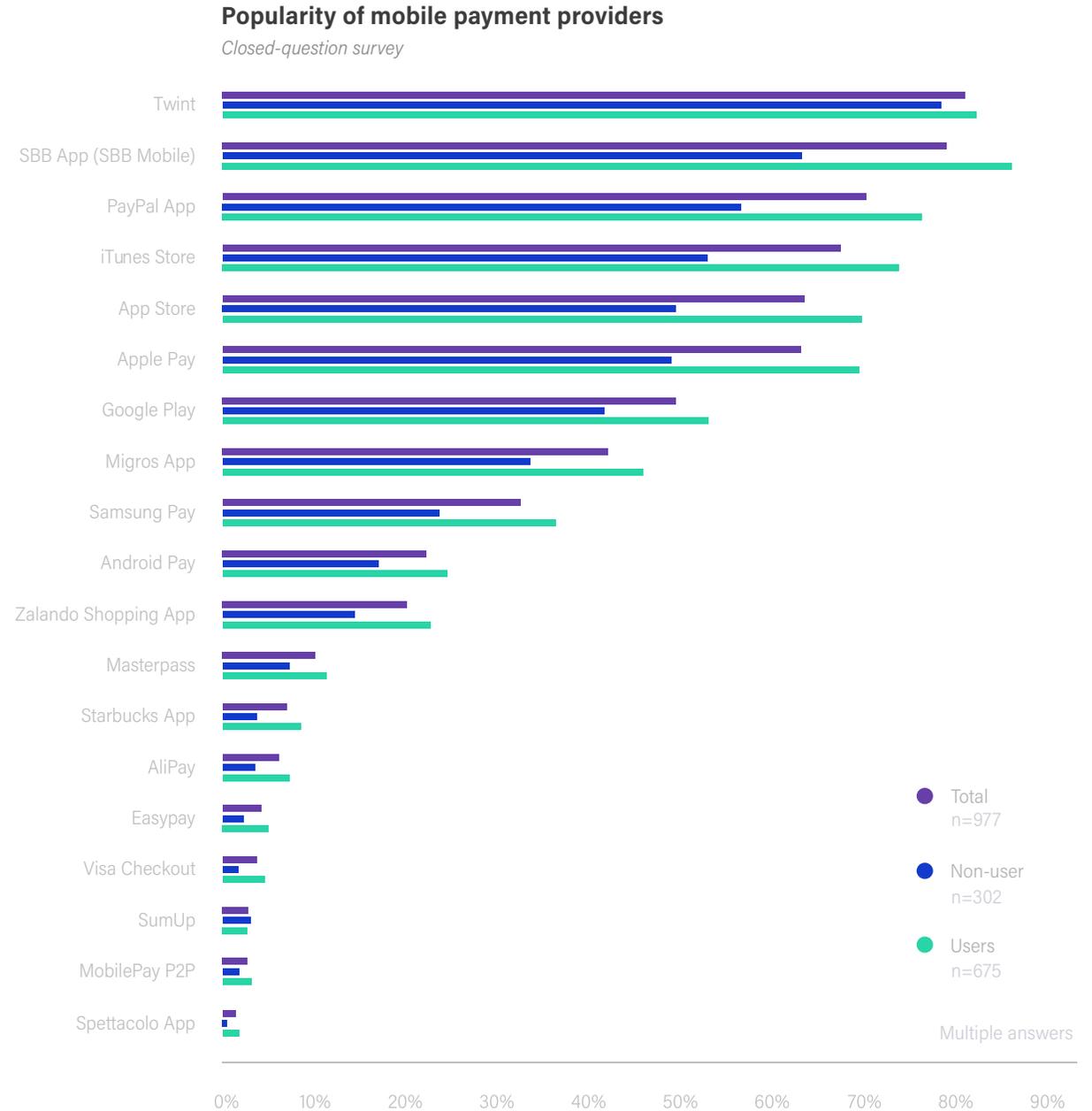


Fig. 38

Question: Which of the following providers do you know at least by name?

(Based on respondents who are familiar with mobile payments)

VIII. Glossary

Distance business (remote payments)

Payments where payer and recipient are in separate spaces (e.g. payment in online shops, deposit at the counter, etc.).

Debit card (EC card)

Payment cards that are linked to a private account and are charged immediately after payment (e.g. Maestro/EC card, PostFinance card/Post card, VPay).

Cash back (POS withdrawal)

The possibility to withdraw cash when making a retail purchase, e.g. at supermarket check-outs. The total amount for purchase and withdrawal is deducted from the private account.

E-Commerce

The sale of goods and services via the Internet.

Electronic bill (e-bill)

Invoices that are created and transmitted electronically.

In-app payments

A form of mobile payment whereby payments are made using an integrated payment function (e.g. iTunes, PayPal, SBB mobile app).

National principle

Based on the origin of the payment card (in this case only Switzerland). All transactions made with domestic cards within and outside of Switzerland are collected.

Domestic principle

Based on the geographical boundaries within Switzerland. All transactions made with domestic and foreign cards within Switzerland are collected.

Online payment services

Payment procedures based on the payer's online banking transfers as well as special online payment methods that enable the user to pay within their own network (so-called closed-loop systems) and which are linked only to the payment account or a payment card.

Contactless payment by card (contactless payment)

Processes that transmit the necessary payment data without contact, in other words, via wireless technology (NFC, Bluetooth) by holding the card in front of the reader. A PIN is only required for purchases over CHF 40.

Credit card

A payment card that usually generates a delayed booking of account charges. The retailer is guaranteed payment (e.g. Master Card, Visa, American Express).

Customer card with payment function

A customer or loyalty card from a retailer that can be used to pay. The payment itself usually occurs downstream via direct debit or charging a credit card (e.g. MyOne card (Manor, Jumbo, athleticum), Globus card, Starbucks card, petrol station cards, gift cards).

VIII. GLOSSARY

Direct debit Electronic payment method in which the recipient, using a payment service provider, has an amount debited from the payer's account (e.g. LSV, debit direct, Swiss direct debit).

Mobile payment (mobile payment, M-payment) Payment using a smartphone or other mobile device (e.g. Android Pay, Apple Pay, Samsung Pay, Twint, PayPal).

Cash on delivery Shipping and payment method whereby, upon the receipt of the goods, payment is made by the recipient to the delivering postal or logistics company.

Online transfer (online banking) An electronic payment system that enables customers of banks or other financial institutions to manage their personal account online and process banking transactions via the website of the financial institution.

Online transfer A payment made to the recipient's account from the payer via a transfer of funds online.

Paper invoice Bill on paper

Peer-to-peer (P2P) payments A form of mobile payment referring to payments made between private individuals domestically or abroad using a mobile app (e.g. PayPal, Twint, Western Union).

POS (Point of Sale) Physical place where goods or services are sold and paid for (e.g. at the cash register). Online and mail order businesses are not currently included in the present definition of POS.

Face-to-face business (proximity payments) Payment made locally in a physical retail outlet (POS).

Pre-paid card Credit cards that need to be charged with credit before use.

Virtual currency (cryptocurrency) Electronic currency that functions without cash and is based on blockchain technology.

Advance payment A term of payment that requires the buyer to first pay the purchase price before the seller starts the contractual delivery of the goods or the promised service.

Wearable payments A form of mobile payment involving contactless payment via portable devices such as smartwatches and fitness trackers.

Source: German Central Bank, 2017

Study authors



Sandro Graf

Lecturer / Head of
Service Lab & Swiss
Payment Research Centre

School of Management and Law
Stadthausstrasse 14
8400 Winterthur



Bettina Gehring

Senior Research Consultant,
Project Manager Swiss
Payment Research Centre

School of Management and Law
Stadthausstrasse 14
8400 Winterthur



Rafael Domeisen

Research Assistant

School of Management and Law
Stadthausstrasse 14
8400 Winterthur



Dr. Tobias Trütsch

Head of Economics
Division

Executive School of Management,
Technology and Law (ES-HSG)
Holzstrasse 15
9010 St. Gallen

Research partner for data analysis

Dr. Marianne Müller

Institute of Data Analysis
and Process Design

ZHAW Zurich University of
Applied Sciences

The ZHAW Zurich University of Applied Sciences,

with its eight departments and more than 12,000 students, is one of the leading Swiss universities of applied sciences and is active in teaching, further education, research and services. In addition to training and further education, the ZHAW—as a university of applied sciences—has the task of conducting practice-oriented research, promoting the transfer of technology to small and medium-sized enterprises, and providing services on the part of third parties. New knowledge obtained via research flows back into teaching and practice and thus directly or indirectly benefits a specific group of users or society.

The University of St. Gallen (HSG),

as one of Europe's leading business universities, provides training for managers. Founded in 1898 as a demand-oriented business academy, for more than a hundred years the HSG has been a prominent contact point for ambitious people whose goal is to achieve something—personally and socially—to actively shape the future. Staff from 30 institutes offer students qualified degrees in the areas of business administration, economics, law and social sciences, as well as international relations. The HSG regularly features at the top of international business school rankings and is currently ranked fourth in the Financial Times ranking for European business schools.

Swiss Payment Monitor 2018

Swiss Payment Association (SPA)

The aim of the association is to strengthen the position of club members in the Swiss payment market, to exchange and to engage in topic-based cooperation with other players in the Swiss payment market and to promote cashless payment. The activities of the association are in the interest of fair and effective competition.