A Modern Business Tool – M Commerce

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Abstract:

M-Commerce is the need of today's modern market. In the country of 813.2 million mobile users, it is a smart way to catch and satisfy the need of peoples through using Smartphone and internet. With the help of new technology and application software's it is very convenient to reach up to targeted customers in a very short period of time. M-Commerce offers tremendous benefits and facilities to organizations, customers and government. The global trade can be easily done through m-commerce. From the various sources it can be say that e-commerce is transforming in to the m-commerce and which has created the smart way of trading and commerce for today's modern business.

Keywords:

M-Commerce, Modern Business, New Business, modern tools of Business, Market, Technology.

Introduction:

Ecommerce, also known as electronic commerce or internet commerce, refers to the buying and selling of goods or services using the internet, and the transfer of money and data to execute these transactions. Ecommerce is often used to refer to the sale of physical products online, but it can also describe any kind of commercial transaction that is facilitated through the internet[1].

E-commerce is buying and selling of products, services by business and consumers through an electronic medium, without using any paper documents. E-commerce, stands for electronic commerce, on the internet, it pertains to a website, which sells products or services directly from the site using a shopping cart or shopping basket system and allows payments through cards, e-banking, cash on delivery. Customers can purchase anything by sitting comfortably in their office or home and gift it to someone sitting miles apart just by click of a mouse. It offers several benefits to businesses like easily reaching to a fast growing online community, providing unlimited shelf place for products and services, merging the global geographical and time zone boundaries and helping to reach national and global markets at low operating costs M-Commerce also called as Mobile Commerce involves the online transactions through the wireless handheld devices such as mobile phone, laptop, palmtop, tablet, or any other personal digital assistant.

It does not require the user to sit at the computer that is plugged in and perform the commercial transactions. Through M-Commerce, people can perform several functions such as pay bills, buy and sell goods and services, access emails, book movie tickets, make railway reservations, order books, read and watch the news, etc.[2]

Current mobile Internet applications enable consumers to access a variety of services: Web information search, SMS (short message services), MMS (multimedia message service), banking, payment, gaming, emailing, chat, weather forecast, GPS (global positioning service), and so forth. Collectively, we denominate this wide array of services as "m-commerce." However, a clear distinction between m-commerce and PC-based electronic commerce has rarely been made.

M-Commerce Meaning:

M-commerce (mobile commerce) is the buying and selling of goods and services through wireless handheld devices such as smart phones and tablets. As a form of e-commerce, m-commerce enables users to access online shopping platforms without needing to use a desktop computer. Examples of m-commerce include in-app purchasing, mobile banking, virtual marketplace apps like the Amazon mobile app or a digital wallet such as Apple Pay, Android Pay and Samsung Pay.

Over time, content delivery over wireless devices has become faster, more secure and scalable. As of 2017

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[1] https://www.shopify.com/encyclopedia/what-is-ecommerce

[2] https://businessjargons.com/m-commerce.html

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the use of m-commerce accounted for 34.5% of e-commerce sales.

Mobile commerce is an increasingly large subset of electronic commerce, a model where firms or individuals conduct business over the internet. The rapid growth of mobile commerce has been driven by a number of factors, including increased wireless handheld device computing power, a proliferation of m-commerce applications, and the broad resolution of security issues.

The Convenience of Mobile Commerce

The range of devices capable of mobile commerce functionality is growing. For example, digital wallets like Apple Pay and Android Pay let customers make in-store purchases without the inconvenience of swiping cards. And during the mid-2010s, social media platforms, such as Facebook, Twitter, Pinterest, and Instagram launched "buy buttons" on their mobile platforms, enabling users to conveniently make purchases from other retailers, directly from these social media sites.

How mobile commerce works

With most m-commerce enabled platforms, the mobile device is connected to a wireless network that can be used to conduct online product purchases. For those in charge of developing an m-commerce application, important KPIs to monitor include the total mobile traffic, total amount of traffic on the application, average order value and the value of orders over time. Similarly, tracking the mobile add to cart rate will help developers see if users are becoming customers. M-commerce developers may also be interested in logging average page loading times, mobile cart conversion rates and SMS subscriptions.

In terms of mobile payment products specifically, they operate through a form of peer-to-peer (P2P) sharing. Once a mobile device is paired with a bank card's information, the phone can be waved over a payment terminal to pay for a product. This contactless payment using a mobile device is possible due to the use of Near Field Communication (NFC).

Advantages and disadvantages of mobile commerce

The advantages of m-commerce include:
- Added customer retention by being more easily accessible.
- More convenience for customers in comparing prices, reading reviews and making purchases without the need of a desktop computer.
- Wider variety of products and services.
- Automates a businesses' point of customer contact and sales.

Disadvantages of m-commerce include:
- A poorly executed mobile experience can deter customers from making purchases.
- Mobile payment options are not available in every geographic location and may not support every type of digital wallet.
- Businesses must know and comply with tax laws and regulations of all countries they ship to (some businesses will avoid this by only allowing purchases and shipping from their country of origin).

Key Differences Between e-commerce and m-commerce

The major differences between e-commerce and m-commerce are explained below:

- e-commerce is defined as the performance of business activities with the use of the internet. When any sort of commercial transaction is transacted with the use of cellular devices, it is known as m-commerce.
- e-commerce is an older concept than m-commerce.
- m-commerce is originally developed on the lines of e-commerce. So it can be said that m-commerce is a part of e-commerce.
- e-commerce activities are concluded with the help of computers and laptops, whereas in m-commerce, smart phones, tablets, iPad, PDA's (Personal Digital Assistant), etc. are used.
- In e-commerce, the use of the internet is compulsory but in the case of m-commerce the use of the internet is not mandatory.
- The connectivity of m-commerce is comparatively larger than e-commerce.
- m-commerce devices are easy to carry anywhere because they are light weighted which is not possible with e-commerce.

Applications of M-commerce

1. M-Commerce for finance

The customer (using the mobile) can pay from their bank account using mobile commerce facilities. Mobile users can transfer funds between account or receive any information related to finance from financial institutions or banks. WAP based mobile devices allow the user to access the internet or the website of the financial institutions.

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For example, a user of the credit card gets reminded from the institution stating the amount of outstanding balance, minimum amount due and the due date. Likewise, when the customer pays through cheque or when the payment is made by him, the institution sends an acknowledgement through SMS stating the amount that has been received by the institution.

2. M-Commerce for Retail and After sale Services
Companies can also make online catalog of products so that the mobile users can access the catalog from their mobile devices. Customers are able to shop, place orders or hire services and pay for dues through mobile phones.

3. M-Commerce and Mobile Marketing
It is easy for business organizations to send text messages to promote a new product or carryout any form of promotional campaign. For example, Reliance Fresh sends the customer an SMS stating the reward points earned by them when they purchase goods from Reliance. Even if some changes are brought in providing reward points, they are informed to the customer in order to encourage sales.

4. M-Commerce and Mobile Ticketing
Airline tickets can be purchased through mobile phone. It also enables users of mobile phone to make changes in their tickets. For example, With "flybuy SMS" launched by Kingfisher Airlines and paymate, customers can get the details of Kingfisher airlines flights by sending SMS. The customer can book the ticket after receiving a reply. Besides the above, movie tickets can also be booked through mobile phones.

5. M-Commerce and Mobile Entertainment
Mobile terminal acts as a portable music player. Downloading ringtones has become successful m-commerce application. Mobile phone manufacturers and wireless providers are making good money by selling different kinds of customized ringtones.

6. M-Commerce for Hotel Reservations
Using mobile devices, customer can reserve for restaurants and hotels according to their needs.

7. M-Commerce in Healthcare and Medicine
Wireless services are used in healthcare and medicine for billing, lab ordering, referrals, prescriptions and clinical decisions. For example, in United States, healthcare professionals are able to obtain patient information from any location by getting connected wirelessly to the hospital's information system. They are able to access the pharmaceutical information of patients and provide better patient care.

8. M-commerce for Intra-Office Communication
Sales personnel, who are always on the move, may need to access to the company information system to check price of products. But mobile allows the traveling sales personnel to track inventory and maintain communication with seniors at ease. Traveling salesmen do not have to wait for long to get approval from the seniors. Any information could be transferred easily and quickly with the help of mobile devices. It removes barriers in intra-office communication.

9. M-Commerce for Information
Mobiles enable customers to get information like sport news or political news of their choice. For example, today through SMS, students are able to check their university results or public examination results.

10. M-Commerce for Gaming
Customers can play multi player games through mobiles. Mobile games are very popular with colourful displays and it generates good revenue.

Mobile payment types:

1. Premium SMS based transactional payments
SMS payment means using text messages to pay for products or services. To pay, the customer can simply send an SMS message. In return a code or password is sent to them, enabling access to the premium content. The mobile phone carrier will then add the cost to the user's normal monthly bill or deduct it from the prepaid balance. SMS payments are easy and convenient way to handle micropayments. They offer many benefits for content and service providers, such as website owners or app developers.

Benefits
- Instant access to billions of mobile phone users globally.

- No need to make separate contracts or verify customers' identity.

- Customers do not need credit cards or bank accounts.

- Billing is handled by the mobile phone carrier.

Drawbacks

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- Low payout rates – operators also see high costs in running and supporting transactional payments which results in payout rates to the merchant being as low as 30%. Usually around 50%.

- Prices cannot be set freely, but developers have to choose from so called price points that are offered by the SMS payment provider.

- Poor reliability – transactional premium SMS payments can easily fail as messages get lost.

- Slow speed – sending messages can be slow and it can take hours for a merchant to get receipt of payment. Consumers do not want to be kept waiting more than a few seconds.

- Security – The SMS/USSD encryption ends in the radio interface, then the message is a plaintext.

- High cost – There are many high costs associated with setting up this method of payment.

2. Direct Mobile Billing
The consumer uses the mobile billing option during checkout at an e-commerce site to make a payment. After two-factor authentication involving a PIN and One-Time-Password, the consumer's mobile account is charged for the purchase.

Benefits
- Security – Two-factor authentication and a risk management engine prevents fraud.

- Convenience – No pre-registration and no new mobile software is required.

- Easy – It is just another option during the checkout process.

- Fast – Most transactions are completed in less than 10 seconds.

- Proven – 70% of all digital content purchased online in some parts of Asia uses the Direct Mobile Billing method.

Drawbacks
- The most significant limitation is the type and value of goods that can be purchased.

3. Mobile web payments (WAP)

The consumer uses web pages displayed or additional applications downloaded and installed on the mobile phone to make a payment. It uses WAP (Wireless Application Protocol) as underlying technology and thus inherits all the advantages and disadvantages of WAP.

Benefits
- Follow-on sales where the mobile web payment can lead back to a store or to other goods the consumer may like. These pages have a url and can be bookmarked making it easy to re-visit or share.

- High customer satisfaction from quick and predictable payments

- Ease of use from a familiar set of online payment pages

Drawbacks
Unless the mobile account is directly charged through a mobile network operator, the use of a credit/debit card or pre-registration at online payment solution such as PayPal is still required just as in a desktop environment.

3.1. Direct operator billing
Direct operator billing, also known as mobile content billing, WAP billing, and carrier billing, requires integration with the mobile network operator.

Benefits
Mobile network operators already have a billing relationship with consumers, the payment will be added to their bill.

- Provides instantaneous payment.

- Protects payment details and consumer identity.

- Better conversion rates.

- Reduced customer support costs for merchants.

- Alternative monetisation option in countries where credit card usage is low.

Drawbacks
One of the drawbacks is that the payout rate will often be much lower than with other mobile payments options. For example, payout rate with Paypal is around 92%, 84% with Credit Card and around 60% with Operator Billing

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3.2 Online Wallets

Online companies like PayPal, Amazon Payments and Google Wallet also have mobile options. The process usually is registration, entering the phone number, receiving the PIN via SMS, entering the PIN, entering credit card information or other payment type to validate the payment. In subsequent payment only the PIN number is needed.

Benefits

- Lower Costs – Employing the use of online wallets removes the need for intermediaries,

- Competitive Advantage – more convenient transaction processing method for customers, giving businesses that employ this technology a competitive edge in the market.

- Modern – Traditional cash-only businesses, such as craft fairs and flea markets, can now accept debit and credit cards. This opens up an entirely new aspect to payment methods in large markets, introducing many business opportunities and greater potential revenue.

- Convenience – Users are able to get through a purchase in mere seconds with a simple tap or scan of their mobile device. The experience of purchasing items becomes quicker and easier.

Drawbacks

- Investment – The initial monetary investment for building a functional digital wallet application is quite significant.

- Support Technology – There are few supporting technologies to choose from at the moment, with NFC terminals and phone readers being the most prevalent.

- System Outages – Information for digital wallets are stored in the cloud of business servers; therefore, the risk of a system malfunction or shut down is always present. As a result, businesses will not be able to process payments or they will become increasingly slow due to high traffic in the servers.

- Security – Companies must ensure that their customers' information is encrypted and well protected.

3.3. Credit Card

A simple mobile web payment system can also include a credit card payment flow allowing a consumer to enter their card details to make purchases.

Drawbacks

- Any entry of details on a mobile phone is known to reduce the success rate (conversion) of payments.

Benefit

However, if the payment vendor can automatically and securely identify customers then card details can be recalled for future purchases turning credit card payments into simple single click-to-buy giving higher conversion rates for additional purchases.

4. QR code payments

QR Codes are square bar codes. QR, or "Quick Response" barcodes were designed to contain the meaningful info right in the bar code.

QR Codes can be of two main categories: The QR Code is presented on the mobile device of the person paying and scanned by a POS or another mobile device of the payee. Or the QR Code is presented by the payee, in a static or one time generated fashion and it's scanned by the person executing the payment

Benefits

- Easy implementation – It's relatively quick and inexpensive to implement.

- Simplicity – relatively easy to use.

- Reliability – Payment details, title and amount are automatically filled in – there are no mistakes.

- Security Bank mobile apps offer the highest standards of security and safety.

- Addressable Market – Since to NFC chip is required on the phone, the addressable market for this technology interface is quite large.

Drawbacks

- Security – Malicious QR codes can contain malware or Trojans.

5. Contactless Near Field Communication

Near Field Communication (NFC) is used mostly in paying for purchases made in physical stores or transportation services. A consumer using a special mobile phone equipped with a smartcard waves

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his/her phone near a reader module. Most transactions do not require authentication, but some require authentication using PIN, before the transaction can be completed. The payment could be deducted from a pre-paid account or charged to a mobile or bank account directly.

Benefits
- Convenience – Many consumers will "pay" for convenience because convenience is very important in today's society.

- Versatility – NFC can be well adapted for all kinds of situations ranging from bank cards to travel and movie passes, reward systems and even keys.

- Safety – NFC enabled credit cards are much more secure than a credit card magnetic strip. Requires PIN. Retailers no longer have physical access to your credit card information

Drawbacks
- If companies do not agree to integrate NFC into their business, consumers will not be able to use the technology.

- Security – Another major risk to NFC is computer hacking or phone hacking. It is estimated that most governments could take up to 10 years to finally warm up to Near Field Communication technology.

6. Cloud Based Mobile Payment

The cloud based approach places the mobile payment provider in the middle of the transaction, which involves two separate steps. First, a cloud-linked payment method is selected and payment is authorised via NFC or an alternative method. During this step, the payment provider automatically covers the cost of the purchase with issuer-linked funds. Second, in a separate transaction, the payment provider charges the purchaser's selected, cloud-linked account in a card-not-present environment to recoup its losses on the first transaction.

Benefits
- Open and flexible – Cloud-based mobile payments open multiple opportunities to deploy services to consumers using flexible business models.

- Unlock issuer brand value – Issuers have direct control over branding and user experience.

- No ecosystem dependency – Cloud-based mobile payments require fewer intermediaries, speeding time to market and giving issuers more control of the launch and project.

- Security – By relying on approved vendors that provide completely secure environments and advanced tokenization methods, issuers can achieve high security levels for card data.

- Visa and MasterCard endorsed – Cloud-based mobile payments have been endorsed by both major card associations. Standards, requirements and program approval processes are being defined to enable financial institutions to securely host digital cards in the cloud.

Drawbacks
- Security in smart phone memory – In order for transactions to be performed at merchant POS systems, even without network coverage, the issuing bank must provision digital card details to the phone's memory. Details such as a card holder's name and account number must be stored in unsecure phone memory.

- Security and Compliance – Digital Issuance vendors handle the same sensitive data as plastic issuer providers.

- Risk and fraud management – Using mobile devices and cloud to perform transactions creates both challenges and opportunities for issuers on risk management.

- App and user experience – Consumers want the choice to pay using a bank app, a merchant app, or other favourite app. This expectation by consumers requires a management platform to enforce configuration and business rules.

7. Audio Signal Mobile Payments (NSDT)

The audio channel of the cell phone is another wireless interface that is used to make mobile payments. Several companies have created technology to use the acoustic features of cell phones

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to support mobile payments and other applications that are not chip-based. The technologies Near sound data transfer (NSDT), Data Over Voice and NFC 2.0 produce audio signatures that the microphone of the cell phone can pick up to enable electronic transactions.

Benefits

- Secure – It uses the phone audio channel to transmit secure information

- Efficient – It provides an excellent level of efficiency and reliability even in a noisy environment

- No extra hardware is required like in NFC so it becomes less expensive

Drawbacks

- More noisy environment can create a problem in data transfer

Current Trends in M-Commerce

Mobile commerce is best described as buying, selling and performing online transactions on any given mobile device that allows access to the infinite flexibilities of easy mobile application operations on the go.

In 2019 user penetration in the digital-commerce segment is at 56.2% that is expected to grow in coming years. the no of users in digital commerce segment is expected to amount to 3,263.0 million.
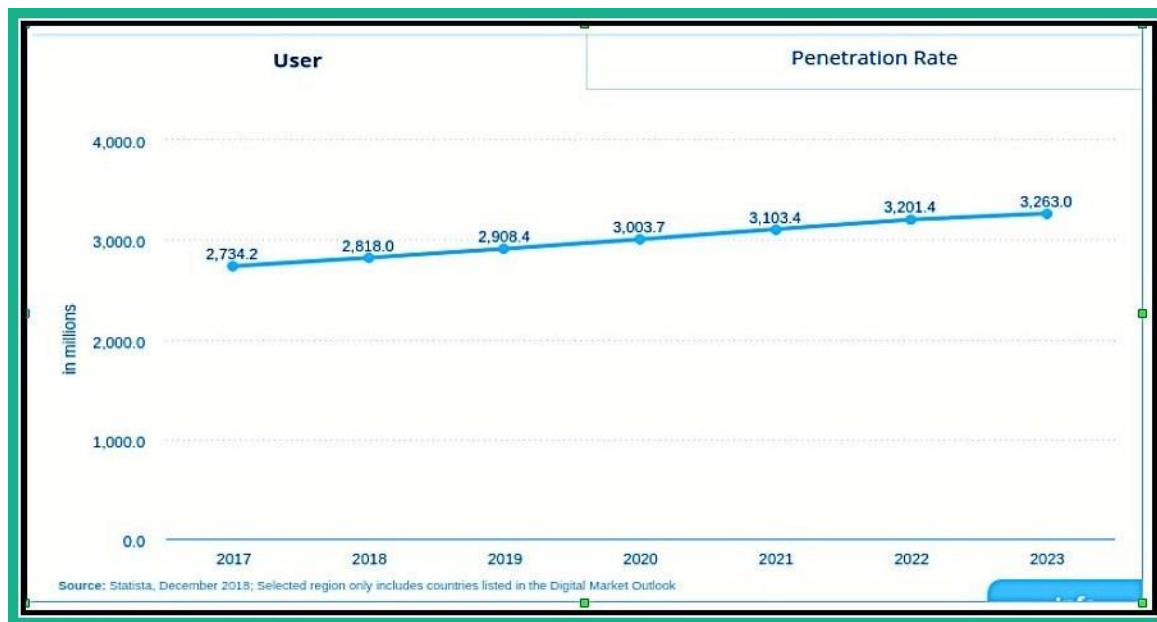
Mobile Commerce Statistical data

Image Source: Statista

In today's fast-changing market trends, surviving technical improvements. Frequent interchanges in business are the keys to being in the market for a very long time. A milestone for the mobile commerce trend solidifies every time a physical store moves to their e-commerce derivative or an e-commerce business decides to go mobile. Gradually sellers realize the value of online presence to reach their target audience. Sellers realize their online expansion can boost brand awareness. Also, their online store becomes much more accessible which bring in more buyers and revenue. Apps like MageNative help users build their business on mobile apps and helps businesses bring more customers on board. In 2019, the trend of transitioning from web to mobile applications gets bigger and better. A recent report by Statista suggests that app user penetration worldwide will grow from 14.8% in 2019 and is expected to hit 17.0% by 2023. Artificial intelligence has made its way into a number of areas like healthcare, real estate, business and more.

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Mobile commerce companies are planning to put in a big chunk of their marketing budgets into this technology. Mobile commerce's developing interest in artificial intelligence integration is set for a worldwide acceptance as a mode of business. A report by Business Insider has recently proposed that around 85% of customer interactions will have the AI as next level communication by as soon as 2020. The report estimates the promising annual savings that businesses could earn if AI integration in mobile commerce applications reinstates their customer handling and sales procedures.

One may ask, can customers browse in-store, scan it with the mobile app, and then add it to the cart to purchase later at home in a different size? If not, then this is what retail stores will be moving towards.

Omnichannel unifies retail with m-commerce advantages with in-store experiences. Retailers face several challenges because of the technical assistance that m-commerce advantages and applications provide. In that case, mobile commerce companies step up and offer the marketing and technologies they can assist with.

Chatbot technology uses natural language processing. It uses NLP for its operation in mobile commerce applications. Chatbots provide a conversational experience between the consumer and the company. It omits all the extra steps of actually ringing up the customer service department.

Mobile Image Recognition Technology brings information from the world we live in. Users take a photo of a random product and upload that image on a MIR-driven mobile app. If the user likes an offer from provided on the phone screen by different sellers, a tap on the screen is all it takes to make that purchase.

Conclusions:

Definition of mobile commerce is changing fast because of discussed technologies. Customer engagement through mobile apps goes one step ahead from the previous years. In 2019 it promises to set new examples of mobile commerce trends. Day to day mobile users are increasing rapidly hence future of m-Commerce in recent days is very bright. Reliability, frequently, timely services and great offers by mobile application providers enhance to the frequency of online M-Commerce transactions. There are also some drawbacks of M-Commerce like network availability, security, failure of online transactions or some kinds of frauds also still due to up gradation and healthy competitions amongst various mobile application service providers giving boost to this sector.

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