

Rapid Growth of Customer Use and Adoption of The Broadcasting Agent and Receivers: A Driving M-Commerce Factor

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Abstract- The success of M-commerce credit goes to the M-commerce driving factors. The driving factor instruct that the factor which is responsible and necessary for enabling the M-Commerce. There are Radio Broadcasting, Telephone Broadcasting, Television Broadcasting, Cable Radio Broadcasting, Satellite Broadcasting and Web Casting considering as broadcasting agent. The study observing the existing driving factors of M-Commerce like The modernization of technology, A consideration of new value chain and demand for customer, Exponential growth of customer interest and adoption of the internet and E-Commerce, Development of real-time transfer of data over 2.5G and 3G network will enable faster data transmission and 'always-on' connectivity, etc. The study focusing on Rapid Growth Of Customer Use And Adoption Of The Broadcasting Agent , Its Receiving Agent And Receivers: A Driving M-Commerce Factor. The study also stating transaction of M-Commerce and its services. The study introducing an advance equation for deciding M-commerce driving factor. The combined process of an equation and case study proposes an advance driving factor. The case study and analysis are proving a proposed driving M-Commerce factor.

Keywords- Broadcast Receiving Agent, The Broadcast Service Transmitter, M-Commerce

I. INTRODUCTION

The customer is using broadcasting agent and it's receivers for business purpose. Radio Broadcasting, Telephone Broadcasting, Television Broadcasting, Cable Radio Broadcasting, Satellite Broadcasting and Web Casting functioning as broadcasting agent. Business can be establish by using broadcasting agent and it's receivers. The broadcasting agent and receivers are the stimulant of the business. The study focusing on Rapid Growth Of Customer Use And Adoption Of The Broadcasting Agent And Its Receivers: A Driving M-Commerce Factor. Here M-commerce indicate that It is suppose to enable us to buy everything from anywhere over the Internet

without the use of a PC. The literature review of the work instruct the existing driving factors.

II. LITERATURE REVIEW

The forces behind the M-commerce "Revolution" have explained by Norman Sadeh.^[1] The work stated forces like 1. Explosion of mobile device, 2. Union of mobile telecommunication networks and Internet. 3. Evolution to third-generation telecommunication technologies and higher data rate they support. 4. Appearance of a broad set of personalized, location-Sensitive, and context-aware applications and services , etc. Driving force for M-Commerce success have denoted as 1. Technology Modernization 2. Value Chain Development and 3. Active Customer demand.^[2] Factors Driving Electronic Commerce Initiative in Malaysian' Organization the study conducted by Ali Khatibi, Abasanul Haque Hishamuddin Ismail and Shameem Al Mahmud. In his work they explain factors driving E-commerce are as follow 1. business values 2. Technology Infrastructure, 3. Customer values and 4. Cooperative regulatory environment.^[3] The key driving factors have analyzed by The Silicon Valley World Internet Center and its programs supporter during August 29,2001 at United States.^[4] The study denoted the top driving factors 1. Usability 2. Contextual Marketing 3. Personalization.

III OBJECTIVES

- 1 To study the existing driving M-commerce factors.
2. To show the essentiality of the proposed M-commerce driving factors. Here the proposed M-commerce factor is "Rapid Growth Of Customer Use And Adoption Of The Broadcasting Agent And Its Receiving Agent And Its Receivers: A Driving M-Commerce Factor."
- 3 To observe the business transaction of M-Commerce Functioning through broadcasting and receiving agents.

IV RESEARCH METHODOLOGY

For considering the study, the case study and its result played an important role. Using case study, data taken from the different M-commerce model and existing literature. Data can also be taken from the M-commerce business transaction. The analysis of the data and its result is depicting in explainable writing format. The sample have taken from industry, individuals and from businessman.

V HYPOTHESIS

1. The broadcasting agent and its receivers are the stimulant of the business.
2. Customer is using broadcasting agents and its receivers for Business Purpose
3. Rapid Growth Of Customer Use And Adoption Of The Broadcasting Agent And Receiving Agent And Its Receivers: A Driving M- Commerce Factor.

VI NEED FOR CONSIDERING A PROPOSED DRIVING FACTOR

The existing driving factor of M-Commerce have denoted as 1. Technology Modernization 2. Value Chain Development and 3. Active Customer demand.^[2] Norman Sade h.^[1] denoted existing driving factor of M-Commerce as 1. Explosion of mobile device, 2. Union of mobile telecommunication networks and Internet. 3. Evolution to third-generation telecommunication technologies and higher data rate they support. 4. Appearance of a broad set of personalized, location-Sensitive, and context-aware applications and services, etc. The existing literature could not elaborately and particularly introduced broadcasting agent and it's receivers as business stimulant or as a M-commerce driving factors. Study observe so many transaction occur on the basis of broadcasting agent and it's receivers. It is need of considering as a M-commerce driving factor because the work should not ignore the m-commerce transaction done by broadcasting agent and it's receivers. The consideration is essential and need of reorganization for Customer Use And Adoption Of The Broadcasting Agent And Its Receivers.

VII TRANSECTION DERIVED BY BROADCASTING AGENTS AND RECEIVER

The study focuses on M-Commerce transaction derived by broadcasting agents and receivers. The study indicate radio broadcast, Telephone broadcast, Television broadcast, cable radio broadcast, web casting, satellite broadcast.

M-commerce transaction perform through the broadcasting agents and through the receivers.

Broadcast receiving agent 1: Radio broadcast receiving agent.

The study indicate AM,FM Short waves broadcast bands receiver called radio. The input can be obtain through antenna. Study observe demodulation and decoding the signals into a consumer or customer usable forms. One way transmission is performing by radio broadcasting. The radio broadcasting include AM,FM and commercial station etc. 3G technology guided mobile obtain the signals as simple portable radio receivers. A customer can enjoy or exercise radio broadcasting from around the world through phones internet access.

Example 1: M-Commerce transaction based on radio broadcasting agent and receiver.

A person is purchasing a tooth paste by listening an advertise and may contact to the company by mobile call or email or by message in the advertise.

Broadcast receiving agent 2: Telephone broadcast receiving agent.

Sound or human sound transmit and receive through telephone system. The Telephone system comprise local loop, end office, Trunk. Two person from large distance can establish interaction using telephone. The study observe telephone communication regarded as a duplex communication device or medium. For speaking there is a microphone and for hearing there is earphone used by telephone device. The stated that telephone broadcasting focus on providing information or announce to the connected person on telephone.

Example 1: M-Commerce transaction based on Telephone broadcast receiving agent and its receiver.

There are recorded telephone call for customer for a products like a book, CD and DVD for spoken English. A customer or listener listen and may contact to the business firm for goods.

Broadcast receiving agent 3: Television broadcast receiving agent.

The study focuses on ground based transmission and reception of analog television signals. There are PAL, NTSC and SECAM considering as analog broadcast television system. Broadcast signals, encoding color, multi channels audio these are essentials for present system. In digital television broadcast signals, encode color, multi channels are combined in a single digital transmission. As instructed in the study the electrical signals turn into sound waves to play in the form of audio and video images. It is television broadcasting receiving system in which the signals are transmitted over the air. Transmitted signals can be obtained by the television receiver and antenna.

Example 1: M-Commerce transaction based on Television broadcast receiving agent and its receiver.

Naptol, Sales India, Asian sky shop are the payable business provider in India. The person using its phone number, contact for establishing business

Example 2 : YouTube – pay news network channel.

Broadcast receiving agent 4: Cable radio broadcast receiving agent

It is observed that the Cable radio broadcast receiving agent considering as cable FM. The analog signals utilized by cable radio. Pay and Non Pay radio services functioning through coaxial cable. The cable is transmission media in which radio signals travel. It is also observe that the cable radio broadcasting is similar to cable TV. Customer is using cable radio for the business information and will perform business transaction.

Example 1 : In U.S, Canada using cable radio for providing emergency information or providing business information.

Broadcast receiving agent 5: Satellite broadcast receiving agent

It is observe that satellite broadcasting utilized digital signals. The satellite is moving in the space and the digital signals can be broadcasted. A special receiver obtain the frequency. The services are regarded as pay services. There is a distribution of broadcasting content over satellite. Customer is using satellite for the business purpose and perform M-Commerce transaction for business.

Example 1 : Direct to Home (D2H) service in India payable receiver based program through satellite.

Broadcast receiving agent 6: Web cast receiving agent

Web casting is a broadcast that is transmitted over the internet and available by computer or through PDAs or cell phone.

Example 1 : E*Trade provide live and on demand streaming services through internet.

VIII EQUATION FOR DECIDING M-COMMERCE DRIVING FACTOR

On the basis of the business transaction done by customer, the study introducing the business transaction variable and M-Commerce driving factor.

Example:

(1) Transaction variable taking as $Tr.V_{(1)}$, $Tr.V_{(2)}$, $Tr.V_{(3)}$,... $Tr.V_{(n)}$. Here, Business transaction matter or content taking as business transaction variable. For example a business transaction, a service of the transaction taking as $Tr.V_{(1)}$, Background of the transaction taking as $Tr.V_{(2)}$, Transaction taking as $Tr.V_{(3)}$, Protocol used in the transaction taking as

$Tr.V_{(4)}$, User based on transaction taking as $Tr.V_{(5)}$, Player based on transaction taking as $Tr.V_{(6)}$, Payment based on transaction

taking as $Tr.V_{(7)}$, Technology based on transaction taking as $Tr.V_{(8)}$, Device or tool based on transaction taking as $Tr.V_{(9)}$, Nature of the transaction taking as $Tr.V_{(10)}$.

(2) M-Commerce driving factor instructing as MDF.

Equation For Deciding M-Commerce Driving Factor :

$$\sum_{i=1}^n Tr.V_{(i)} \rightarrow MDF$$

It means $Tr.V_{(1)} + \dots + Tr.V_{(n)} \rightarrow MDF$

The business transaction variable is important for recognizing or deciding of the M-Commerce driving factor. The study provides a classification of the different business transaction which ultimately leads to the m-commerce driving factors. The equation indicate that MDF (M-Commerce Driving factor) depend on $Tr.V_{(1)} + \dots + Tr.V_{(n)}$ (Sum of the transaction variable).

Case Transaction 1 : To charge user for the content they access for can range from news, to traffic condition and entertainment.

	Transaction Variable 1	Transaction Variable 2	Transaction Variable 3
M-Commerce Driving Factor	$Tr.V_{(1)}$ Services of the transaction	$Tr.V_{(2)}$ Transaction	$Tr.V_{(3)}$ Background of the Transaction
Value Chain Evolution	-Charge user for the content they access -Location base service -To traffic condition -News -Game -Entertainment	-Mobile Transaction Involving small fees -User Pay For News -To traffic condition -Entertainment user will pay for -i-Mode content providers were charging a monthly subscription.	-Mobile communication infrastructure and network background
	Transaction Variable 4	Transaction Variable 5	Transaction Variable 6
	$Tr.V_{(4)}$ Protocol used	$Tr.V_{(5)}$ User	$Tr.V_{(6)}$ Player
	-WAP Wireless Application Protocol	-Customer from all economic sectors of the technology -Mobile device user	-Mobile device manufacturer are players like Nokiya, Motorola etc.

Transaction Variable 7	Transaction Variable 8	Transaction Variable 9	Transaction Variable 10
Tr.V ₍₇₎ Payment	Tr.V ₍₈₎ Technology	Tr.V ₍₉₎ Device or Tool	Tr.V ₍₁₀₎ Nature
-Subscription fees -Transaction fees -On actual basis Commission. PayPerMinute	-Mobile Technology -Using WAP'S UML (3G Wireless digital Cellular Telephone technology)	-WAP enable mobile Phone -Wireless PDA -Video Camera -Palm hand held Wireless Laptop	-Serial in nature

Case Transaction 2 : M-commerce transaction based on increasing demand for data services and content with text, images, animated image, color, 16 cord ringtone.

	Transaction Variable 1	Transaction Variable 2	Transaction Variable 3
M-Commerce Driving Factor	Tr.V ₍₁₎ Services of the transaction	Tr.V ₍₂₎ Transaction	Tr.V ₍₃₎ Background of the Transaction
-Active Customer Demand	-i-Mode Services -SMS based content services -Commercial services based on SMS -Ringing Tones and ICON Services. -WAP services -MMS -Operator Create Wireless market -Poly Phonic Ring Tone -Mobile Multi Media Service	-Marinating the account Transaction -Bookkeeping Bank -E Payment M Payment -Movie Ticket Purchase -Banking -E-Money -NFC Times News	-Wireless Network -Cellular Network Mobile Communication Infrastructure -9.6 PDC Packet Network.
	Transaction Variable 4	Transaction Variable 5	Transaction Variable 6
	Tr.V ₍₄₎ Protocol used	Tr.V ₍₅₎ User	Tr.V ₍₆₎ Player
	-WAP Wireless Application Protocol -Broadcasting agent based protocol. -Simple Fixed-delay broadcasting protocol -Harmonic broadcasting protocol -Adaptive Pyramid Protocol.	-Customer or mobile device user	-3G Competent Mobile -3G TV -Data receiver -PC -Radio broadcast receiver -Telephone Broadcast receiver -Cable radio broadcast receiver -Satellite Broadcast receiver -Web Casting Receiver
Transaction Variable 7	Transaction Variable 8	Transaction Variable 9	Transaction Variable 10
Tr.V ₍₇₎ Payment	Tr.V ₍₈₎ Technology	Tr.V ₍₉₎ Device or Tool	Tr.V ₍₁₀₎ Nature
-Credit Card -Pay as-you-use Mechanism	-Mobile Technology -Mobile Multimedia -Using c-HTML	-PC -WAP enable or c-HTML enable phone -Video Phone	-Do not preserve Sequential in nature

Case Transaction 3 : M-commerce transaction based on Rapid Growth of customer Use and Adoption of the broadcasting Agent and Receiver

	Transaction Variable 1	Transaction Variable 2	Transaction Variable 3
M-Commerce Driving Factor	Tr.V ₍₁₎ Services of the transaction	Tr.V ₍₂₎ Transaction	Tr.V ₍₃₎ Background of the Transaction
Rapid Growth of customer Use and Adoption of the broadcasting Agent and Receiver	-Broadcasting Agent provides service for customer. -	-Business Transaction done automatically and semi automatically using broadcasting agent and receiver	-Data communication and process for different broadcasting agent and receiver. -Wireless Network -Cellular Network Mobile Communication Infrastructure. -Network for NFC
	Transaction Variable 4	Transaction Variable 5	Transaction Variable 6
	Tr.V ₍₄₎ Protocol used	Tr.V ₍₅₎ User	Tr.V ₍₆₎ Player
	-WAP Wireless Application Protocol -Broadcasting agent based protocol. -Simple Fixed-delay broadcasting protocol -Harmonic broadcasting protocol -Adaptive Pyramid Protocol.	-Customer or mobile device user -Audience -Spectator	-3G Competent Mobile -3G TV -Data receiver -PC -Radio broadcast receiver -Telephone Broadcast receiver -Cable radio broadcast receiver -Satellite Broadcast receiver -Web Casting Receiver

Transaction Variable 7	Transaction Variable 8	Transaction Variable 9	Transaction Variable 10
Tr.V ₍₇₎ Payment	Tr.V ₍₈₎ Technology	Tr.V ₍₉₎ Device or Tool	Tr.V ₍₁₀₎ Nature
-Credit Card -Pay as-you-use Mechanism -NFC agent -E-payment -M-payment	-Mobile Technology -Mobile Multimedia -Using c-HTML -Embedded Technology -FM broadcasting Technology -Digital Broadcasting Technology -Digital radio broadcasting Technology -Digital audio broadcasting Technology -Digital Multimedia broadcasting Technology. -DVB-T System.	-PC -WAP enable or c-HTML enable phone -Video Phone	-Do not preserve Sequential in nature -All the broadcasting agent and receiver based transaction

- Three case transaction (case studies) constructed M-commerce driving factors and obtained three results as M-commerce driving factors.

1. Value Chain Evolution from 1st case transaction.
 2. Active Customer Demand 2nd case transaction.
 3. Rapid Growth of customer Use and Adoption of the broadcasting Agent and Receiver 3rd case transaction.
- The broadcasting agent proved to be important for a business Recognizing as business stimulant.
-In the case transaction 3rd, customer using broadcasting agent and receivers for business purpose.
- In the case transaction 3rd, rapid growth of customer use and adoption of the broadcasting agent obtained as an advance M-commerce driving factor.

XI REFERENCES

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- [4] Amdocs Inc, Cable & Wireless, Deutsche Telekom, IBM Corporation, Fujitsu, SAP, Sun Microsystems, The Silicon Valley World Internet Center (US) and its programs Supporter.

IX DATA ANALYSIS

- From the case transaction 1,2,3 the study indicated (i). Value Chain Evolution , (ii) Active Customer Demand and (iii) Rapid Growth of Customer Use and Adoption of The Broadcasting agent And Receiver as M-Commerce driving factor which obtained from the sum of the Transaction 1 to Transaction 10 .

- For obtaining the driving factor phenomena the case transaction have used a service of the transaction taking as Tr.V₍₁₎ , Background of the transaction taking as Tr.V₍₂₎ , Transaction taking as Tr.V₍₃₎ , Protocol used in the transaction taking as Tr.V₍₄₎ , User based on transaction taking as Tr.V₍₅₎ , Player based on transaction taking as Tr.V₍₆₎ , Payment based on transaction taking as Tr.V₍₇₎ , Technology based on transaction taking as Tr.V₍₈₎ , Device or tool based on transaction taking as Tr.V₍₉₎ , Nature of the transaction taking as Tr.V₍₁₀₎ .

X RESULT AND CONCLUSION

- Using equation $\sum_{i=1}^n Tr.V_{(i)} \rightarrow MDF$ the study obtained the sum of all the transaction variables and proved the dependency for M-commerce driving factors.