

## e-commerce: A Social Engagement Tool

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**Abstract:** e-commerce is a supply chain platform where buying and selling of products and services are carried out over the Internet. An e-commerce transaction can be between enterprises, households, individuals, governments, and other public or private organisations (UNCTAD, 2016). The combination of automation and digitalization is revolutionizing manufacturing, services and blurring the lines between them to increase efficiency, optimize logistics, and pricing rationale transparent and competitive, reinforcing the need of organizations to remain innovative (Klaus Schwab, 2016). Therefore, Industry 4.0 would still enhance unlimited access to business opportunities through digitalizations of all process from production-marketing-sales-transactions will close-loop the manufacturer and customers around the world. Social networks would offer cost effective prospects to build and propagate the image of organization, their products /services to global reach. Creativity will be the driving factor in the technology age. Creating new products / services, and connecting customers will bring in more business. E-commerce will drive Core Competency of the organization to the optimum level; and Satisfactory Performance in business deliveries will facilitate more potential access to variety of markets, where the product or service is perceived by the consumer as best satisfying the needs compared to any other competitor by achieving cutting edge performance in marketing.

**Keywords:** E-commerce, Digital marketing, Creative work force, Information age, internet, connectivity, Social networks

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### I. Introduction

e-commerce can come into existence only when e-inclusion happens in a business environment (Shennawy, (2013). e-commerce allows consumers to electronically exchange goods and services with no barriers of time or distance. It has more inbuilt benefits for customers such as convenience, time saving, more options, easy to compare, take opinion from reviews, and best offer-discounts-deals. The organization can capitalize on huge customer base, sales increase, sale can be anytime and always an open-shop, business reach is phenomenal and quick transaction. e-commerce platform is a supply chain platform where stake holder's buying and selling of Products & Services are carried out over the Internet. Core Competency and Satisfactory Performance in businesses facilitate potential access to variety of markets, where the product or service is perceived by the consumer as best satisfying the needs compared to any other competitor and thereby achieve cutting edge performance in Marketing. There are certain inevitable disadvantages to customers like the exposures to privacy invasion, personal data security breaches, distorted reality vs expectations on product/ service quality and quantity, extra hidden charges, inordinate delay in receipt of goods and exchange for damage, unnecessary and inevitable waiting period after payment, internet or telephony is a necessary, and customer service may be horrible at times (Franco *et al.*, 2013). e-commerce is thus a facilitates easy access, provides all information and has a effective customer service department to the products or service (Krishnan, 2014)

### II. e-commerce: Evolution

The issue of ecommerce and social engagement can be set within the theoretical framework which is concentrated on two streams of research, that are the open and the user innovation. Open innovation emphasizes the role of the interactions between external and internal ideas in creating value (Chesbrough *et al.*,2006), while user innovation focuses on the role of users, both individuals and firms (Von Hippel, 2005) as leading innovators since their skills and competences have a key role in the creation of innovation. There is great harmony in significant contribution to sustainable participation among SME's in e-commerce which makes way for inclusive economic growth. E-commerce impacts significantly in spreading prosperity and creating jobs in

rural areas (International Trade Centre, 2016). The competitive scenario imposes firms to change their business models, searching for new ideas that can come from the outside world and assuming new internal processes and technologies to improve their competitive position (Chesbrough *et al.*, 2006). Hence, firms can develop and implement innovative ideas based on the opinions and comments the costumers express using the online communities. A community is defined as an organization that includes individuals with diverse backgrounds and preferences: their interaction generates fresh and complementary resources, knowledge and competencies. Therefore, customers can actively contribute to firms' innovation processes through the sharing of their opinions and ideas. The so-generated innovation can lead to a better performance and value creation, not just for the firms but for the customer as well, since the service/product is built with the purpose of answering to the needs of the demand for democratized innovation (Von Hippel, 2005).

**III. Responsiveness to Consumer:**

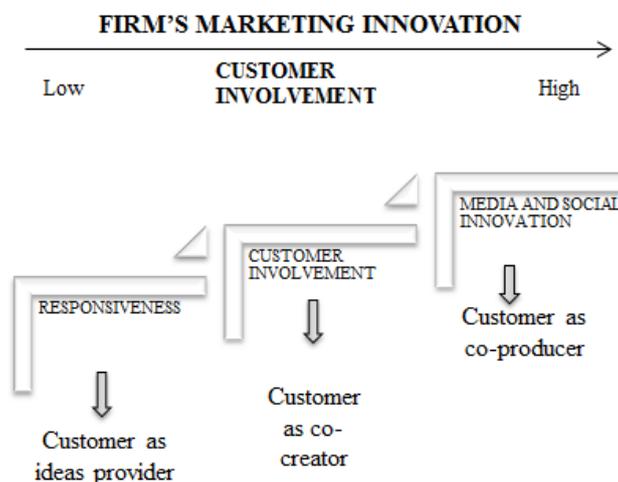
Quality is a key factor in influencing customer satisfaction. In the field of marketing activities, firms can get a deep sense of customers' needs and expectations in order to align their products/services quickly. The key success factor in the implementation of marketing innovation is information, with specific reference to the wishes and requirements of the customers as well as to the form of the competition offer. (Della Corte *et al.*, 2016). The Customer Relationship Management (CRM) activities include the understanding of customer satisfaction or dissatisfaction, matching their expectations and answering to their compliances, enhancing the service quality and the customer care. Marketing innovation can be introduced both at the induced and at the organic level of the service creation process, with the purpose to reach a greater comprehension of customers' needs and create a mutual value for firms and consumers (Vargo *et al.*, 2004).

**3.1 Customer involvement.**

The costumer is directly involved in the process of product/service creation: the firms enquire about their necessities and preferences and incite for innovative proposal and initiatives that can improve the offer. Customer involvement in the innovation process permits the creation of more customized services that encounter the target expectations, dedicated offers and activities, which enrich the demand satisfaction and retention.

**3.2 Social media and market innovation.**

The experiential component of the service fruition makes the media and social innovation tools crucial to guarantee the consumer's enjoyment and contentment. This dimension represents the highest degree of engagement of customers. Responsiveness step is that the firms establish their propositions of value and receive feedback after the consumption phase. Customer involvement step is where there is co-creation between the firm and its customers through the participation at the production phase. Social media and Market innovation step is when the customer shares their ideas, needs, suggestions and become a "producer" and creates highly customized products and services. Here, crowdsourcing activities and formation of like-minded networks and start to share knowledge through web. Firms use these collective intelligence through online contest, bringing competition between freelancers working for a specific project, product launch, etc. (Della Corte *et al.*, 2013). From the above we elaborate that the steps to firms marketing innovation are as (Fig.1) follows



**Figure 1 – Firms marketing innovation vs. Customer involvement**

#### **IV. Connecting Business Stake Holders**

In this technology era, business boundaries between countries are invisible due to Internet. The Marketing organizations will redraw their organization charts and would become lean. Digital marketing and will take internet advertising direct to the customer. The business field analysis and marketing plan will have thin differences as it would drive to precise targets and customized deliverables.

##### **4.1 Types of e-commerce - B2B / B2C / C2C / B2G**

Business-to-business (B2B) - accounts for the bulk of the value of e-commerce; Business-to-consumer (B2C) - involves enterprises to consumers through sales channel, including social networks, crowdsourcing platforms, dedicated e-commerce websites, and mobile applications; Consumer-to-consumer (C2C) – the connection is through newspaper or an auction, covers online marketplace platforms (e.g. eBay or Taobao), and sales within online communities, consumer blogs and chat rooms; Business-to-government (B2G) - similar to B2B here the buyer is a government entity, such as when it makes requests to bid through public e-procurement (UNCTAD, 2015).

##### **4.2 Strategies to synergize**

Unlike the physical market strategizing, organization can make alternative marketing plan envisaged through outsourcing, partnering or hiring afresh an expert to assist in the e-commerce endeavor. As the Internet of Things (IoT) becomes mainstream, the number of connected devices will almost triple by 2020 (Klaus Schwab, 2016). To accelerate seller adoption of e-commerce; realign existing economic incentives; and promote a national brand to boost cross-border e-commerce countries, Malaysia has gone a step further in engaging global consultants to support their thought process (A T Kearney, 2016).

The retail e-commerce known as e-tailing, leverages on verticals and would garner a large consumer database. Careful planning and a comprehensive understanding of the marketplace will facilitate to develop a business strategy for e-commerce that will ensure success. Wide coverage of e-commerce by government support to promote and market eCommerce to SMEs, improve SME eCommerce training and talent development, create a one-stop e-business portal, eCommerce to statutory bodies, encourage government to use e-procurement, transform delivery network with world-class capabilities, protect customer rights, e-hub resources, border clearance lead time reduction, and national implementation of e-Payment innovations, will lead businesses to a powerful opportunity of global growth in e-commerce market (A T Kearney, 2016).

##### **4.3 Collaborative Marketing**

B2B e-commerce platforms facilitates conducting of business easier, improves responsiveness and service, and assists in building brands (Oracle, 2011), through increased response time-to-market for new products, reduced risks and costs of entering new markets, and with the existing sales force. Collaboration will enlighten self-interest and open multiple perspectives to strengthen the decision-making process. A leading or principal organization's decision, will position its supplying units to automatically follow the stream. Thus, e-commerce organizations are leading organizations which should collaborate with clear process structure among equally deliverable competent micro units. The marketing force-field analysis starts introspecting the principal organization and its micro units with a SWOT and then plans a distribution technology process which drives customer fitment, completion allowance, channel throughput commercials.

#### **V. Data Science Tools in Marketing**

e-commerce platforms tools should leverage customer information to enable marketers to develop and execute strategy for relevant multistage marketing. Segmentation and targeting should be effective to perform multivariate testing of strategies to maximize results (Oracle, 2011). Mobile telecom operators will be exposed to huge changes in business and business modeling approaches (Jurcic et al., 2016). B2B e-commerce should aggregate product information into a central repository that provides a single, consistent, accurate, up-to-date customer requirement and connected channels on demand, offer and display the right information on right product to right customer based on factors such as past history, geography, and demography, to enhance sales and satisfaction (Oracle, 2011).

The data science analytic tools can be used to process and cull out effective decisions on marketing (Krishnan et al., 2017).

##### **5.1 Hadoop**

Hadoop is a higher-level user interfaces like SQL, for storage and large-scale processing of data-sets on clusters of hardware, it is a software framework with modules such as libraries and utilities; data processing; resource management; and distributed file-system.

### **5.2 SQOOP**

a pluggable connector operating on command-line interface application. It is like a SQL query for import populating HIVE to transfer big data between relational databases and export to external Data Warehouse. Scoop is for data imports, transfer and copy to external systems and then analysis.

### **5.3 HIVE**

is like SQL Data base, it is a data warehouse on Hadoop to segregate, summary and analysis. The hive stores Meta data in an embedded form, compressed data stored in the form of algorithms; It uses UDF of Data Mining tools; compiles, transacts and stores; accelerates queries and indexes.

### **5.4 Mongo DB**

is a horizontal platform in a database that is placed on different hardware / multiple machines for improving performance through Data Modeling includes embedding, growth and relationship modeling, tree structures, memory storage through pipeline and operators, replication of concepts, concerns and fail-overs, using JavaScript Object Notation, schema design, indexing and working with language drivers.

## **VI. Reaching Customer**

Industry 4.0 is expected to make organizations to remain innovative, for unlimited access to business opportunities through digitalization process. The combination of automation and digitalization is transforming manufacturing, services and concealing the differences with improved efficiency, logistics, and prices become competitive. Therefore, the end users interface will phenomenally shift the enterprise eco-system from a Real-Specific-Location (RSL) to Virtual-Omni-Reach (VOR) organization. The enterprise strategy is dependent on the network infrastructure. Developing a customer centric marketing mix (4Ps) of business functionality, adaptability and intuitiveness right from design stage of marketing strategy is very crucial for successful implementation. Therefore, it is pertinent to deploy an exhaustive strategy to continuously deliver more effectively to customers. Effective customer management is dependent upon the accepted timelines of delivery for physical reach of the product/service to the end customer; hence conveniently spaced, online inventory management through integrated warehouse hubs is paralleled essential.

In addition to the banks, credit and debit card transactions there are other electronic financial transaction organizations such as *paytm, Dimoco, PayPal, Trustly, AcceptEmail, SlimPay, iDEAL, and Pay U Global* etc., which enable digital transaction for e-commerce organizations. They have widely spread and associated themselves with the merchandise organizations. The innovation which drives digital transactions in new era customer is smart phones, affordable-ubiquitous internet access, and compliance regulatory measures. The Industry 4.0 Revolution would depend on digital technologies and business models for creation, exchange, and distribution through network infrastructure for business sophistication (Klaus Schwab, 2016).

### **6.1 Digital e-commerce – Customer Management**

24x7 online access to product/service information should be easily accessible, with fallback support by efficient CSR team. Marketing Strategy integrates long term planning and short-term implementation thereby to take account of factors such as Operational, Socio-Legal-Economic-Political and Technical.

### **6.2 Social engagement in e-commerce**

Procurement through crowd-source will bring more new products and future insights at competitive costs. The principal organization can engage better through feedback on the customer expectations and market reality to connected micro units. Opportunity to quickly react to market demands through product/service development and other functional areas. Prime challenge for firms in developing countries is on the platforms for improved efficiency in production and logistics, therefore such of those under privileged firms need to group together, register as a mutually owned business entity or contract with a third party to represent them. Registering in marketplaces and signing agreements on their behalf with payment solution vendors (International Trade Centre, 2016) gives them synergic positioning and trade advantage.

### **6.3 e-commerce in education**

e-commerce ecosystem will modernize the educational framework for life-long learning opportunities, collaborate with individuals of different backgrounds on a real-time, expose them to different points of views/ideas; and teach them to think critically. Educational institutions will have to protect intellectual property rights, security, and look forward on updating regulations to prevent potential misuse of new technologies nurturing a dynamic business environment. Even advanced countries today could quickly lose their human capital advantage if their education system fails to capitalize on computer based / online learning, certifications and revalidations to improve upon their needed skills capacity for future professionals and entrepreneurs (Klaus Schwab, 2016). In education a e-commerce framework can suit both teachers and learners, however a e-commerce course work can includes application oriented learning and basic management concepts such as

computer & digital literacy, multimedia & web publishing, internet marketing, retail marketing, principles of Marketing, advertising and promotions (Kentucky, 2017) physical & financial transactions, Logistics Management, ICT infrastructure, security and regulations (Anandkumar, 2014).

## VII. Conclusion

Economic prosperity increases with smarter use of all resources of production, efficiently to fulfill the evolving human demands. To reach beyond marketing, sales communication, product development and other functional areas, social networks are better tools (Krishnan, 2015). Therefore, Social engagement through social media influences greater business impact in engaged companies. The e-commerce organizations could face serious dereliction due to safe custody of customer information, fear of online theft, misuse of financial transaction data, venturing into an unknown new field of information and communication, unnecessary inventory carrying cost shared with affiliated units, investing/upkeep in internet/telephony infrastructure and continuously keep updating with changing technology. Exert caution in following areas on e-commerce sites such as web application archive (.war) file activity, source code with LDAP, encryption keys, card data logs, access from unknown IPs, and malicious upload/download behavior (Rasmussen, 2015).

New technologies, will become a reality and the present and the future in our daily lives (Jurcic et al., 2016). e-commerce therefore, would view competitiveness in organizations, practices and market-reach as factors affecting the productivity of an economy. The cyber security should be very watchful with crime hackers who target internet exposed remote access systems as initial intrusion points, phish out the credit/debit card data and indulge in money theft through ATMs, Gift cards, Premium goods (Rasmussen, 2015). e-commerce organizations can be guided from Open Web Application Security Project (OWASP), an active body advocating open standards in Application Security space, on technology marketplace about unbiased source of information on IT related best practices.

e-inclusion includes flexibility to hold together various diversities such as a culture, language, people perspectives etc., (Shennawy, (2013). With a wide unity-in-diversity, India is marching forward with very ambitious coverage of e-commerce for its citizens. The first step to it was the roll out of common GST across India on the 1st July 2017, which was banked upon assured digitalization and meticulous demonetization.

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