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# CONSTRUCTING AN INNOVATION BUSINESS MODEL: MARKETING 6.0

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*The study aims to review literatures including industry 4.0, web 1.0 to 6.0, O2O marketing (click-and-mortar), omni-channel marketing, Marketing 1.0 to 6.0. And explore what are the essential dimensions in the marketing 6.0 model. Finally, the study constructs an innovation business model: Marketing 6.0. There are four essential dimensions in the marketing 6.0 model which includes industry 4.0, web 1.0 to 6.0, O2O marketing (click-and-mortar), omni-channel marketing. Furthermore, Industry 4.0 includes Cloud Marketing, AI Marketing, Big data Marketing, IoT Marketing; web 1.0 to 6.0 includes Web 4.0 Marketing, Web 5.0 Marketing, Web 6.0 Marketing; O2O marketing (click-and-mortar) includes Mobile Marketing, Online payment/Offline consumption/Consumer feedback, VR Marketing; omni-channel marketing includes Personalized experience, customer experience of seamless, integrated, and consistent.*

**Keywords:** Marketing 6.0, Industry 4.0, Web 6.0, O2O, omnichannel marketing

## 1. Introduction

In the recent years, industry is undergoing a transformation that concerns a full digitalization of marketing processes. Customization is an important asset of this fourth industrial revolution bringing together the B2B and B2C perspectives. Firms need to be closer to their customers and more reactive in interpreting their needs, through deeper customer's involvement and engagement at the value chain level - in designing and the developing processes of products. With this respect, the new technologies are changing the buyer-seller relationship, either in the B2B and in the B2C markets, stressing the firm's capability to quickly respond to the customer desires (Obal and Lancioni, 2013). Other recent studies have highlighted how B2B firms have started to use digital marketing tools, espe-

cially the social media marketing, in the same way of B2C firms (Wang, Pauleen and Zhang, 2017). This new marketing approach of B2B companies is connected with the growing international competitiveness of industrial markets. Final customers and business clients should be managed in the same way, because of the great complexity governing the economic markets. This involves the establishment of customer-centric business systems using the new technologies to understand the customer and engaging him in the production processes.

Web 4.0 can be considered as an Ultra-Intelligent Electronic Agent, Symbiotic web and Ubiquitous web (Jonathan Fowler and Elizabeth Rodd, 2013). Interaction between humans and machines in symbiosis was motive behind the symbiotic web. Web 5.0 can

be considered as Symbiotic web, decentralized i.e. it is not possible to have a Personal Server (PS) for any personal data or information stored on the net, and people tries to get interconnected via Smart Communicator (SC), like Smart phones, Tablets or Personal Robots i.e. is represented as its own avatar inside the SC, that will be able to surf alone in the 3D Virtual world of the Symbiotic(Dan, Farber, 2007). Krumova et al. (2017) look at the impact of adoption of open and linked data in business and marketing practices. They identify five generations of Web, with the following characteristics: (i) Web 4.0 is seen a symbiosis interaction between humans and machines; (ii) and Web 5.0 is referred as a web of decentralized smart communicator. Benito-Osorio et al., (2013) predict Web 5.0 as the sensory and emotive Web. Khanzode and Sarode (2016) introduce a new Web generation, entitled Web 6.0, in which web service extensions will deploy the role of serving dynamic content in web servers, such as IIS or Apache. Finally, associated with the role of Web 4.0 to 6.0 appears the concept of Industry 4.0.

According to Doland (2015), the concept of O2O means "online to offline or connecting internet users to shops and services in the real world". Moreover, Kerry Rivera (2017) indicated, "We no longer live in a single-channel world. If you have ever checked Facebook while watching TV or scanned websites while shopping in a store, you've experienced our multichannel culture. Research from Google shows that 98% of Americans switch between devices in the same day". Omnichannel is a cross-channel business model and content strategy that companies use to improve their user experience. Omnichannel is an integrated way of thinking about people's relationships with organizations (Molly Galetto, 2018).

Therefore, the study aims to:

1. Review literatures including industry 4.0, web

1.0 to 6.0, O2O marketing (click-and-mortar), omnichannel marketing, Marketing 1.0 to 6.0.

2. Explore what are the essential dimensions in the marketing 6.0 model.

3. Construct an innovation business model: Marketing 6.0.

## 2. Literature review

### 2.1. Industry 4.0

In the recent years, industry is undergoing a transformation that concerns a full digitalization of manufacturing processes. Smart manufacturing technologies (autonomous robots, additive manufacturing, laser cutting), big data and cloud computing, Internet of Things (IoT), augmented reality are some new technologies are driving the rise of the new digital industrial revolution, known as Industry 4.0 (Almada-Lobo, 2016). A greater flexibility of production processes and a greater attention to the customers are necessary to face the increasing complexity on markets. Recent literature shows that new technologies of Industry 4.0 allow manufacturing firms reaching such results and, specifically, achieving higher efficiency and productivity rates, quickly customized products and time to market responses (Berman, 2012).

The Industry 4.0 is a new phenomenon aimed at changing economic rules in all industries with main attention to the manufacturing ones. The peculiar feature of this industrial revolution is its higher degree of complexity compared to the previous ones. Essentially, Industry 4.0 considers the usage of new technologies with the aim to integrate objects, humans and machines across organizational boundaries to form a new type of networked value chain. Firms implement a three-types of integrations: horizontal, vertical and end-to-end integration, which allow them to improve the efficiency of production processes and maximize the customization of products (Weller, Kleern and

Piller, 2015). In this sense, the most relevant findings of scholarly research scholars refer to: (a) the increase of firms' productivity and (b) to the growing role of customers in the firms' production processes. In the approach of Industry 4.0, recent research found some technologies, such as robotics, additive manufacturing technologies, laser cutting are have principally the potentiality to provide more efficient performances (Yeo, Pepin and Yang, 2017). Others, such as IoT, Big data, or Cloud computing allow instead improving firm's knowledge about the customer needs (Porter and Heppelmann, 2015). As a matter of fact, certain technologies and applications seem, therefore, to be more appropriated for the business-to-consumer (B2C) domain while other ones for business-to-business (B2B) markets.

Notwithstanding this scenario, customization is an important asset of this fourth industrial revolution bringing together the B2B and B2C perspectives. Firms need to be closer to their customers and more reactive in interpreting their needs, through deeper customer's involvement and engagement at the value chain level - in designing and the developing processes of products. With this respect, the new technologies are changing the buyer-seller relationship, either in the B2B and in the B2C markets, stressing the firm's capability to quickly respond to the customer desires (Obal and Lancioni, 2013). Other recent studies have highlighted how B2B firms have started to use digital marketing tools, especially the social media marketing, in the same way of B2C firms (Wang, Pauleen and Zhang, 2017). This new marketing approach of B2B companies is connected with the growing international competitiveness of industrial markets. Final customers and business clients should be managed in the same way, because of the great complexity governing the economic markets. This involves the establishment of customer-centric business systems using the new tech-

nologies to understand the customer and engaging him in the production processes.

## 2.2. Web 1.0 to 6.0

### 2.2.1 Web 1.0

Web 1.0 was first implementation of the web and lasted from 1989 to 2005. It was define as web of information connection. According to the innovator of World Wide Web, Tim Berners-Lee considers the web as? read-only Web (Tim Berners-Lee, 1998). It provides very little interaction where consumer can exchange the information together but it was not possible to interact with the website. The role of the web was very passive in nature. Web 1.0 was referred as the first generation of World Wide Web which was basically defined as ? It is an information space in which the items of interest referred to as resources are identified by global identifier called as Uniform Resources Identifiers (URLs) First generation web was era static pages and content delivery purpose only. In other world, the early web allowed us to search for information and read it. There was very little in the way of user interaction or content contribution (Tim Berners-Lee, 1998).

(1) Characteristics Web 1.0 (Tim Berners-Lee, 1998):

Web 1.0 Technologies includes core web protocols, HTML, HTTP, and URI. The major characteristics of web 1.0 are as follow:

- ◆ They have read only content.
- ◆ Establish an online presence and make their information available to anyone at any time.
- ◆ It includes static web pages and use basic Hypertext Mark-Up Language.

(2 ) Limitation Web 1.0 (Tim Berners-Lee, 1998):

The major limitations of web 1.0 are as follow:

- ◆ The Web 1.0 pages can only be understood by humans (web readers) they do not have machine compatible content.

◆ The Web master is solely responsible for updating user and managing the content of website.

◆ Lack of Dynamic representation i.e., to acquire only static information, no web console were available to performing dynamic events.

### 2.2.2 Web 2.0

Web 2.0 is the second generation of web. It was defined by Dale Dougherty in 2004 as a read-write web (Tim Berners-Lee, 1998). The concept began with a conference brainstorming session between O'Reilly and Media live International. The technologies of web 2.0 allow assembling and managing large global crowds with common interests in social interactions.

Tim O'Reilly defines web 2.0 on his website as follows (O'Reilly, 2006):

"Web 2.0 is the business revolution in the computer industry caused by the move to the internet as platform, and an attempt to understand the rules for success on that new platform. Chief among those rules is this. Build applications that harness network effects to get better the more people use them."

Web 2.0 facilitates major properties like participatory, collaborative, and distributed practices which enable formal and in formal spheres of daily activities on going on web. In other terms it resemble major distinct characteristics of Web 2.0 include "relationship" technologies, participatory media and a social digital technology which in term can also defined as the wisdom web. People-centric web and participative web is taken in to concern and which facilities reading and writing on the web which makes the web transaction bi-directional (O'Reilly, 2006).

Web 2.0 is a web as a platform where users can leave many of the controls they have used in web 2.0 In other words; the user of web 2.0 has more interaction with less control. Web2.0 is not only a new version of web 1.0 but it also implies to flexible web design,

creative reuse, updates, collaborative content creation and modification in web 2.0 that should be considered as one of the outstanding feature of the web 2.0 is to support collaboration and to help gather collective intelligence rather web 1.0(Source: <http://taibumakumba.blogspot.in> ).

### (1) Characteristics of Web 2.0

Web 2.0 is instead a label coined by Tim O'Reilly and associates to reference the transition of World Wide Web to a new phase of use and service development (Harrisom, & Barthel, (2009). The categorization can be used to elaborate on the understanding of Web 2.0 achieved through varied definitions (Anderson, P. , 2007).

\* Technology Centric Characteristics: Web has become a platform with software above the level of a single device. Technology that is associated with blogs wikis, podcasts, RSS feeds etc.

\* Business Centric Characteristics: It is a way of architecting software and businesses. The business revolution in the computer industry is caused by the move to internet as platform and an attempt to understand the rules for success on that of new platform.

\* User Centric Characteristics: The Social Web is often used to characterize sites that consist of communities. It is all about content management and new ways of communication and interaction between users. Web application is facilitates collective knowledge production, social networking and increases user to user information exchanges.

### (2) Limitation of Web 2.0

Sometimes it may happen that if the new technology meets expectations of the mass user at large, there may be a chance that these technologies may face lot of consequences from external environment which may suppress or limit the flow of technology as a whole(Anderson, P. , 2007).

\* Constant Iteration Cycle of change and updates to services (Anderson, P. , 2007)

\* Ethical issues concerning build and usage of web 2.0

\* Interconnectivity and knowledge sharing between platforms across community boundaries are still limited (Abel, et al., 2007; Chan, et al., 2009)

### 2.2.3 Web 3.0

Web 3.0 is one of modern and evolutionary topics associated with the following initiatives of web 2.0. Web 3.0 was first coined by John Mark off of the New York Times and he suggested web 3.0 as third generation of the web in 2006 (Nova Spivack, 2011). Web 3.0 can be also stated as "Executable Web". The Basic idea of 3.0 is to define structure data and link them in order to more effective discovery, automation, integration, and reuse across various applications (Ossi, Nykänen, 2003). It is able to improve data management, support accessibility of mobile internet, simulate creativity and innovation, encourage factor of globalization phenomena, enhance customers' satisfaction and help to organize collaboration in social web (Nova Spivack, 2011).

Web 3.0 is also known as semantic web. Semantic web was thought up by Tim Berners- Lee, inventor of the World Wide Web (Tim Berners-Lee, 1998). A dedicated team at the World Wide Web consortium was working to improve, extend and standardize the system, languages publications and tools have already been developed (Sean, 2001). Web 3.0 is a web where the concept of website or webpage disappears, where data isn't owned but instead shared, where services show different views for the same web or the same data. Those services can be applications devices or other, and have to be focused on context and personalization, and both will be reached by using vertical search (Mind Booster, Noori, 2007). Web 3.0 supports world wide database and web oriented architecture

which in earlier stage was described as a web of document. It deals mainly with static HTML documents. But dynamically rendered pages and alternative formats should follow the same conceptual layout standards whenever possible and links are between documents or part of them. The web of document was designed for human consumption in which primary object are documents and links are between documents. Semantics of content and links are implicit and the degree of structure between objects is fairly low (Sareh Aghaei, et al., 2012). The Proponent of the web of data envisions much of the world's data being inter-related and openly accessible to the general public. This vision is analogous in many ways to the web of documents of common knowledge, but instead of making document and media openly accessible, the focus is on making data openly accessible, the web of data hosts a variety of data sets that include encyclopedic facts, drug and protein data metadata on music, books and scholarly articles, social network representations, geospatial information, and many other types of information in some ways like a global database that most its features are included Semantics of content and links are explicit and the degree of structure between objects is high based on RDF model. In Figure the structure of web of data is shown simplicity (Tim, Berners-Lee & Christianet al., 2008)

#### (1) Semantic Web

The semantic web is a collaborative movement led by international standards body the World Wide Web consortium. According to the W3C (W3C, 2001), "The Semantic web provides a common framework that allows data to be shared and reused across application, enterprise, and community boundaries. The main purpose of the Semantic web is driving the evolution of the current web by enabling users to find .share and combine in formation more easily. The Semantic web, as originally envisioned, is a system that enables

machines to understand and respond to complex human requests based on their meaning. Such an understanding requires that the relevant information sources be semantically structured.

## (2) Layered Architecture for Semantic Web

Tim Berners-Lee originally expressed the Semantic web as (Berners-Lee, 1999) 'If HTML and the web made all the online documents look like one huge book, RDF, schema and inference languages will make all the data in the world look like one huge database. Tim Berners-Lee proposed a layered architecture for semantic web that often represented using a diagram, with many variations since. The development of the semantic web proceeds in steps, each step building a layer on top of another. Figure shows the 'layer cake' of the semantic web which describes the main layers of the semantic web design and vision (Jane, Greenberg & Stuart, et al., 2003).

★ Unicode and URI: Unicode is used to represent of any character uniquely whatever this character was written by any language and uniform Resource Identifier (URI) is unique identifiers for resources of all. The functionality of Unicode and URI could be described as the provision of a unique identification mechanism within the language stack for the semantic web (Patel et al., 2013).

★ XML: It is a language that lets one write structured web documents with a user-defined vocabulary XML is particularly suitable for sending documents across the web. XML has no built-in mechanism to convey the meaning of the user's new tags to other users.

★ RDF: Resource Description Framework is a basic data model, like the entity-relationship model, for writing simple statements about web object. A scheme for defining Information on the web. RDF provides the technology for expressing the meaning of

terms and concepts in a form that computers can readily process.

★ Logic Layer: It is used to enhance the ontology languages further and to allow the writing of application-specific declarative knowledge

★ Proof Layer: It involves the actual deductive process as well as the representation of proofs in web languages and proof validation.

★ Trust Layer: It will emerge through the use of digital signatures and other kinds of knowledge based on recommendations by trusted agents or on rating and certification agencies and consumer bodies. Semantic web is not limited to publish data on the web. It is about making links to connect related data. Berners-Lee introduced a set of rules have become known as the linked data principles to publish and connect data on the web in 2007 (Christian, Bizer & Tom et al., 2009).

- ▶ Use Uris as names for things.
- ▶ Use HTTP Uris to look up those names.
- ▶ Provide Useful information. Using the standards (RDF) by look up a URI.
- ▶ Include links to other URIs to discover more things.

Data providers can add data to a single global data space by publishing data on the web according to the linked data principles.

## (3) Characteristics of Web 3.0

The major characteristics of web 3.0 as marked by Nova Spivack are (Nova Spivack, 2011):

- ▶ SaaS Business Model.
- ▶ Open source software platform.
- ▶ Distributed Database or what called as 'The World Wide Database.
- ▶ Web Personalization.
- ▶ Resource Pooling.
- ▶ Intelligent Web.

#### (4) Challenges of Web 3.0 (Nova Spivack, 2011)

Web 3.0 faces several challenging issue like-

► **Vastness:** The World Wide Web contains many billions of pages. Redundancy in data may occur which has not yet been able to eliminate all semantically duplicated terms.

► **Vagueness:** This arises from the vagueness of user queries, of concepts represented by content providers, of matching query terms to provider terms and of trying to combine different knowledge bases with overlapping but subtly different concepts.

► **Inconsistency:** These are logical contradictions which will inevitably arise during the development of large ontologism and when ontologism from separate sources is combined.

► **Deceit:** This is when the producer of the information is intentionally misleading the consumer of the information.

#### 2.2.4 Web 4.0

Web 4.0 can be considered as an Ultra-Intelligent Electronic Agent, Symbiotic web and Ubiquitous web (Jonathan Fowler and Elizabeth Rodd, 2013). Interaction between humans and machines in symbiosis was motive behind the symbiotic web. It is powerful as human brain. Progress in the development of telecommunication, advancement on nanotechnology in the world and controlled interfaces are using web 4.0. In simple words, machines would be clever on reading the contents of the web, and react in the form of executing and deciding what to execute first to load the websites fast with superior quality and performance and build more commanding interfaces (Dieter Fensel, et al., 2000). Web 4.0 will be read write concurrency web (Hemnath, 2010). It ensures global transparency governance, distribution, participation, collaboration in to key communities such as industry, political, social and other communities. Web OS will be such as a middleware in which will start function-

ing like an operating system (Ron, Callari, 2009). Web OS will be parallel to the human brain and implies a massive web of highly intelligent interaction (Dan, Farber, 2007).

#### 2.2.5 Web 5.0

Web 5.0 is still an underground idea in progress and there is no exact definition of how it would be. Web 5.0 can be considered as Symbiotic web, decentralized i.e. it is not possible to have a Personal Server (PS) for any personal data or information stored on the net, and people tries to get interconnected via Smart Communicator (SC), like Smart phones, Tablets or Personal Robots i.e. is represented as its own avatar inside the SC, that will be able to surf alone in the 3D Virtual world of the Symbiotic. The Symbiotic servers will be able to use a part of "memory and calculation power" of each interconnected SC, in order to calculate the billions and billions needed data to build the 3D world, and to feed it's Artificial Intelligence surf alone. Currently the Web is "emotionally" neutral: do not feel the user perceives. The company Emotive Systems has created neuro technology through headphones that allow users to interact with content that meets their emotions or change in real time facial expression an "avatar"(Dan, Farber, 2007).

#### 2.2.6 Web 6.0

Krumova et al. (2017) look at the impact of adoption of open and linked data in business and marketing practices. They identify five generations of Web, with the following characteristics: (i) Web 4.0 is seen a symbiosis interaction between humans and machines; (ii) and Web 5.0 is referred as a web of decentralized smart communicator. Benito-Osorio et al., (2013) predict Web 5.0 as the sensory and emotive Web. Khanzode and Sarode (2016) introduce a new Web generation, entitled Web 6.0, in which web service extensions will deploy the role of serving dynamic content in web servers, such as IIS or Apache. Internet

Information Services (IIS) 6.0 delivers Web hosting services through an adjustable architecture that you can use to manage server resources with improved stability, efficiency, and performance. IIS separates applications into isolated pools and automatically detects memory leaks, defective processes, and over-utilized resources. When problems occur, IIS manages them by shutting down and redeploying faulty resources and connecting faulty processes to analytical tools (Ku. & Ravindra, 2016).

Finally, associated with the role of Web 4.0 appears the concept of Industry 4.0. It is an industrial concept recently emerged that encompasses the main technological innovations in the fields of automation, control and information technology applied to manufacturing processes (Almada-Lobo, 2015; Roblek, et al., 2016; Rojko, 2017). From the concepts of cyber-physical systems, Web services and IoT, production processes tend to become increasingly efficient, autonomous and customizable. The main goal is the creation of smart factories that could be increasingly efficient, yet simultaneously interactive, highly dynamic and reactive to changes in external environments (Sheladiya, et al., 2017; Lee, et al., 2017).

A new node named web Service Extensions has been added to the Internet Information Services Manager (ISM) in Internet Information Services (IIS) 6.0. Web service extensions are programs that extend the basic IIS functionality of serving static content. Examples of Web service extensions are, Active Server Pages (ASP), ASP.NET, FrontPage Server Extensions, Server-side includes (SSI), Internet Database Connector, Web Distributed Authoring and Versioning (Web DAV), Common Gateway Interface (CGI), Internet Server API (ISAPI), Active Server Pages (ASP), ASP.NET, FrontPage Server Extensions, Server-side includes (SSI), Database Connector, Web

Distributed Authoring and Versioning (Web DAV), Common Gateway Interface (CGI), and Internet Server API (ISAPI) (Ku. & Ravindra, 2016).

### **2.3. O2O Marketing (click-and-mortar)**

#### *2.3.1 Online to Offline*

According to Doland (2015), the concept of O2O means "online to offline or connecting internet users to shops and services in the real world". He, Zhang, Gou & Bi (2017) pointed that O2O is to combine the offline with online stores, which differs O2O model from pure online models and pure offline models. Customers pay online for goods and services in the real world and when the online platform receives orders, it will ask the stores in the real world to provide relevant goods and services to these online users. O2O is a convenient way of providing goods and services to customers. According to Tomes (2016), there are three advantages of O2O and they are "brand reputation", "revenue and loyalty" and "time to market". O2O tries to attract customers to the physical stores through online platforms, which is different from stores purely selling goods online. O2O provides an approach for merchants to introduce their brands online and offer services to their customers conveniently, because the development of smartphones gives businesses an opportunity to get more customers and provide more services. O2O also shorten the time of advertising, because offline merchants put their stores on certain O2O platforms and users of the platform will see them conveniently. Xia & Zhu (2014) also points out that the O2O strategy has some advantages in their study. For example, O2O break the limitation of geography and people can use O2O platforms as long as there is a mobile signal. Except this, O2O provides a better personal experience for customers, because customers download platforms in accordance of their needs and the platforms can offer relevant services. Online to offline is a phrase

(commonly abbreviated to O2O) that is used in digital marketing to describe systems enticing consumers within a digital environment to make purchases of goods or services from physical businesses (PC Magazine, 2018; Wayne Duggan Benzinga, 2015).

Online to Offline refers to a combination of offline business and online commerce. O2O mode is characterized by its information flow and cash flow on online, logistics and ecommerce flow on the offline which greatly expanded the scope of business of e-commerce. Online process including the business service information recommendation and search, online payment, the customer feedback, offline process mainly refers to the consumption line (Zhang, 2014)

### 2.3.2 Virtual Reality in Business

Due to the great progress that VR made in video game industry, many companies are trying to apply it to their business. For instance, eBay has developed and released a smartphone application called "eBay VR department" in Australia in 2016, which is based on a smartphone platform and was regarded as the world's first virtual reality department store and more than 12000 products could be found in it. In China, Alibaba offered their VR project "buy+", in which customers can visit hundreds of virtual store, these stores are created on the basis of what these stores look like in the real world, without leaving their home. IKEA released an experimental PC application called "IKEA VR experience" (Morris, 2016).

The reason why we believe VR technology will affect marketing is not only that some companies have tried to apply it to business, but also there are examples proving that technology will change marketing and business. The social media changed the marketing environment and many companies regard it as a channel to communicate with consumers. Interaction and communication with client and consumers through a direct and targeted way build confidence between

companies and customers. That is the most important reason why companies, no matter multinational or just small business, join in the social media (Samanta, 2012). Compared to social media, not only can VR interact with consumers but also the interaction through virtual reality is more humanized and much closer to human life (Will, 2015).

### 2.3.3 Virtual Reality Marketing and Retailing

Virtual reality marketing in retailing can be defined as a kind of marketing method to promote the products by using virtual reality technology (no matter if this technology needs the internet or not). Jiang and Benbasat (2004) say that in the stage of consumers' evaluating the products during the decision-making process, there are two types of virtual control, visual control and functional control. Visual control means that consumers can access and manipulate the products with their mice and keyboard such as zooming and moving. This kind of virtual control is widely adopted by many online malls and is applied to some virtual reality device, like a Google headset by which consumers can control and evaluate the products by turning their head. The second kind of controlling, functional control, which means consumers can not only assess the products by seeing, but also through the interaction with the virtual products to comprehend the function of products. This kind of control system is similar to device like Valve and there are few applications of this control system (Jiang and Benbasat, 2004).

To evaluate the effect of two control systems, Jiang and Benbasat (2004) adopt perceived diagnosticity and flow. Perceived diagnosticity represents the extent to which consumers think the specific shopping experience is helpful when they assess the products. Authors describe flow as "an affective state when individuals are involved in certain activities". The result of their research proves that these virtual control systems

enable consumers to gain more information about products and they feel more confident when they choose products. The result of perceived diagnosticity and flow about incorporation of both control system shows that it creates a more enjoyable shopping experience and it can help retailer to attract and retain consumers.

This marketing and promoting method has great potential in application to the business fields. Vrechopoulos, Apostolou and Koutsouris (2009) indicate that millions of consumers visit virtual worlds and spend virtual money, for both their virtual lives and real lives, despite the fact that these virtual worlds are based on games. However, the appearance of virtual reality devices will innovate business models and provide a new communicating and sales channel for retailers.

Relevant research concerning virtual reality and marketing or retailing is hard to find. Reasons may be that the application of this technology to business is still at an early stage, there are few applications for researchers to conduct research on and companies haven't fully understood its value and significance. Vrechopoulos et al., (2009) say in their report that virtual customer's environment (VCE) enables firms to improve their business, but most firms seem not to fully understand and realize its significance and potential and "attach sufficient importance to the nature of customers' interaction in the VCE".

#### **2.4 Omni-Channel Marketing**

According to Kerry Rivera (2017), "We no longer live in a single-channel world. If you have ever checked Facebook while watching TV or scanned websites while shopping in a store, you've experienced our multichannel culture. Research from Google shows that 98% of Americans switch between devices in the same day. But let's be honest: Most people switch between devices within the hour, maneuvering

from mobile device to desktop to tablet. As a result, marketers must adapt their campaign strategies to be successful and grab consumer attention. There is no magic formula in omnichannel marketing, but marketers can adopt a few strategies to optimize campaigns and overall results".

Retailers that leverage omnichannel customer engagement strategies boast a customer retention rate of 89% compared to only 33% for companies with a weak omnichannel presence. More channels and the speed of digital bring both complexity and opportunity for omnichannel marketers, but mastering this science will be key as consumers demand more personalization. As they say, it's all about delivering the right marketing messaging at the right time in the right place (Kerry Rivera, 2017).

#### ***What is Omni-Channel Marketing?***

According to Kerry Rivera (2017), first of all, what is omni-channel marketing? The term "omni-channel" may be a marketing buzzword, but it refers to a significant shift: marketers now need to provide a seamless experience, regardless of channel or device. Consumers can now engage with a company in a physical store, on an online website or mobile app, through a catalog, or through social media. They can access products and services by calling a company on the phone, by using an app on their mobile smartphone, or with a tablet, a laptop, or a desktop computer. Each piece of the consumer's experience should be consistent and complementary. So what does that seamless omni-channel experience actually look like? In the words of John Bowden, Senior VP of Customer Care at Time Warner Cable: "Multi-channel is an operational view - how you allow the customer to complete transactions in each channel. Omni-channel, however, is viewing the experience through the eyes of your customer, orchestrating the customer experience across all

channels so that it is seamless, integrated, and consistent. Omni-channel anticipates that customers may start in one channel and move to another as they progress to a resolution. Making these complex 'hand-offs' between channels must be fluid for the customer. Simply put, omni-channel is multi-channel done right!"

#### ***A Definition of Omni-Channel Marketing***

Omni-channel marketing has become key to marketing success as customers engage with companies in a variety of ways, including in a physical store, online via websites and mobile apps, through physical and virtual catalogs, and through social media. Consumers also utilize landlines and smartphones or tablets to search for products, access services, and make purchases. People also interact with brands and companies using apps on smartphones, tablets, desktop computers, and laptops. The challenge for organizations is to make all of these omni-channel marketing defined interactions and experiences as seamless, consistent, and effective as possible for customers (Molly Galetto, 2018).

According to (Molly Galetto, 2018), organizations must employ omni-channel marketing methods and strategies in order to meet customers where they are. Consumers expect more personalized communication with companies through the various channels and devices they use, and companies that do not keep up with the shift are losing ground to their competitors that do. Time Warner Cable senior VP of customer care John Bowden says organizations that are most successful with omni-channel marketing view it through the eyes of the customer, "orchestrating the customer experience across all channels so that it is seamless, integrated, and consistent. Omni-channel anticipates that customers may start in one channel and move to another as they progress to a resolution."

#### ***Omni-Channel Marketing Challenges***

One of the most significant challenges marketers and their organizations face when shifting to omni-channel strategies is knowing the difference between omni-marketing and multi-channel marketing. Because so many organizations struggle to make the jump from business-centric to customer-centric practices, they also struggle to put the customer at the forefront when they create integrated experiences for customers. Breaking down silos and breaking free of traditional marketing campaigns also is difficult for some organizations when they first adopt omni-channel marketing practices. The shift to omni-channel also requires buy-in from the entire organization and a shift in company culture. As Leah Stigile, VP of global business for Toms Shoes points out, "Luckily, we have buy-in from across the organization for omni-channel," and her company proactively works to ensure cohesion over time, especially with events such as their annual one day without shoes event to help people across all customer touchpoints band together around a unified message to drive awareness about people lacking necessities such as shoes (Molly Galetto, 2018).

#### ***Omni-Channel Marketing Best Practices***

Stacy Schwartz, digital marketing expert, consultant, and adjunct professor at Rutgers Business School, echoes the notion that an omni-channel approach must be a customer-centric marketing approach: "It omni channel marketing best practices acknowledges that mobile and social have enabled customers to not only quickly switch between channels, but actually use channels simultaneously. For example, checking out product reviews on their mobile phone while evaluating a product on a physical retail store shelf." The best omni-channel marketing strategies account for the fact that customers engage with companies in a variety of ways across platforms, and they ensure consistent experiences every time. Customers look for receiving

personalized interactions and conversations with brands. Some of the best practices for omni-channel marketing include (Molly Galetto, 2018):

- ▶ Accounting for each platform and device customers use to interact with the company and then delivering an integrated experience to align messaging, goals, objectives, and design across each channel and device

- ▶ Developing a unique omni-channel infrastructure with collaboration between several departments

- ▶ Adopting new technologies: make sure your site is optimized for mobile and enable customers to stop directly from social media sites

- ▶ Considering virtual reality experiences for customers

- ▶ Testing customer experiences and measure everything

- ▶ Segmenting your audience

- ▶ Listening and responding on preferred channels and devices

- ▶ Personalizing experiences and offering the most convenient interactions as possible

Omni-channel marketing is a must as customers and organizations have unprecedented access to digital technologies and channels. Our uber-connected world has created mounds of customer data for companies; if they use it correctly, they will be able to key into customer affinities and behavior to adopt omni-channel strategies and solutions to better manage the data, understand customers, and exceed customers' expectations at each and every interaction (Molly Galetto, 2018).

According to (Molly Galetto, 2018), Omnichannel is a cross-channel business model and content strategy that companies use to improve their user experience. Omnichannel is an integrated way of thinking about people's relationships with organiza-

tions. Rather than working in parallel, communication channels and their supporting resources are designed and orchestrated to cooperate, building a coherent, evolving, cross-channel experience. To be omnichannel, a strategy does not need to support all possible channels, which is a practical impossibility. Instead, omnichannel implies integration and orchestration of channels such that the experience of engaging across all the channels someone chooses to use is as, or even more, efficient or pleasant than using single channels in isolation. The approach has applications in any industry, but early examples have been in financial services, healthcare, government, retail, and telecommunications industries. Omnichannel supersedes multichannel and includes channels such as physical locations, ecommerce, mobile applications, and social media (Wasserman, Tom, 2015; Fallon, Nicole, 2014). Companies that use omnichannel contend that a customer values the ability to engage with a company through multiple avenues at the same time (Solomon, Micah, 2015; Genesys, 2016).

#### ***Key solutions in the omnichannel world***

In the omnichannel world, display advertising, search engines, social media, referral websites, e-mail and mobile marketing can be considered as the independent channels within the digital intermediate due to those methods can all promote one-way or two-way communication. The retailers should find ways to integrate the online and offline channels and avoid segregated campaigns (Fiona et al., 2016). Therefore, no matter how the shoppers swap across channels and devices, the use of various channels and touchpoints are able to be consistent, concurrent and compatible (Verhoef et al., 2015).

To adapt an omnichannel concept, customer behaviours need to be understood by the retailers. Specifically, elements that might drive the customers

to make purchase decision; and customer's paths to purchase, which related to their lifestyle, time committed to the purchase and the distance to the retail store. Based on the customer behaviours, retailers could provide targeted incentives through digital and mobile promotions (Fiona et al., 2016). Omnichannel solutions also allow brands and companies to tighten supplier controls and optimise their product inventory across numerous sales channels, ensuring that the optimum stock levels are situated in each location and the channels are kept up to date with stock information (Retail Assist., 2018).

### ***Omnichannel retailing practices***

Omnichannel means having a uniform customer experience. A simple example is that the design of the website should remain consistent with the mobile app and should also match branded physical environments. Consumers can shop the same way through in-store, website, and mobile. Regardless of the customers' location and time. The order can either be delivered to the address directly, collected at the store, or collect from a retail partner. In the United States, retailers and brands are commonly selling online and offline. Online channels include branded webstores, Marketplaces like: Amazon, eBay, Jet.com, Walmart.com and social channels like: Facebook, Google Shopping and Google Express. To ensure omnichannel and multichannel retail strategies are controlled and implemented efficiently, brands and retailers use software to centrally manage product information, listings, inventory and orders from vendors. and Zentail (Zentail, 2017).

### ***2.5 Marketing 1.0 to Marketing 6.0***

Marketing 5.0 will be obsessed with convenience. By 2020, the customer experience will overtake price and product as the key brand differentiator. You need to make a persuasive value proposition. When you do this, customers will be happy to share their data. Social

media and SEO ushered in the Marketing 4.0 era, and as Forbes contributor John Ellett noted, we've come a long way from Marketing 1.0 (the printing press) and even Marketing 2.0 and 3.0 (broadcast technologies and PCs, respectively). But our current marketing methods-powered by broadband and big data-are just the forerunners of the new strategies that will define success in the future. And that future, Marketing 5.0, is upon us (David Saef, 2015).

Marketing 4.0 Moving from Traditional to Digital is the guide that marketers should read. In 2010, Kotler published Marketing 3.0, describing how marketing has evolved from product-driven marketing (1.0) to customer-centric marketing (2.0) to human-centric marketing (3.0). "Marketing 4.0 is an effort to look at marketing along a different dimension," said Kotler in a recent interview. "Marketing traditionally was oriented with communication being key, a one-way communication, just labeled traditional marketing. Good fortunes were built on brands that hit us continuously with Campbell's and Kellogg's." But connectivity and technology have altered the way we approach marketing. "A lot has happened since we wrote Marketing 3.0," Kotler writes in Marketing 4.0, "especially in terms of technological advancements." While the technologies are not necessarily new, Kotler writes, "They have been converging in recent years, and the collective impact of that convergence has greatly affected marketing practices around the world." Clearly the buyer has more power than ever before. At the core of Marketing 4.0, Kotler provides a new set of marketing metrics and new ways of looking at the practice of marketing with an eye on improving marketing productivity. Finally, Kotler describes how marketers can implement effective tactical programs in this converging world of traditional and digital marketing. In a recent interview, Kotler said two key principles he wanted to get across to readers in Marketing 4.0 were

recognizing the alternative paths to purchase that customers take and having clear metrics at each stage (Michael Krauss, 2017).

Marketing 5.0 is both disruptive and additive to previous eras. The printing press (1.0) enabled a literate populace and eventually brought us marketing channels of newspapers, magazines and direct mail. Broadcast technologies of radio and television (2.0) enabled real-time communications on a mass scale, made new forms of news and entertainment possible and created environments for effective brand storytelling. PCs and the Internet (3.0) ushered in the digital age and enabled customers to search out information on their own terms and connect directly with brands' content and commerce capabilities directly. Customer empowerment was significantly advanced by mobile technology and social media (4.0), which enabled anytime, anywhere access to valuable information including the opinions of friends and like-minded buyers. Now, marketing clouds (5.0) will begin to tie the engagement channels from previous eras into meaningful omni-channel experiences based on the uniqueness of individual customers (John Ellett, 2014).

According to Mike Robertson, Ewelina Ciach (2015), results from the maturity marketing has achieved thanks to technologies adoption and advanced orchestration of business processes. Marketing 1.0 was about printing press in newspapers, magazines and direct mail. Marketing 2.0 broadcasted in TV and radio, whereas Marketing 3.0 made outbound communication in PC / Desktop Internet. Mobile devices and Social Media made Marketing 4.0, but finally Marketing 5.0 created omni-channel experiences. Now we are in Marketing 6.0 Era, which amplifies engagement that leads to loyalty, repeated revenue and decreased acquisition cost and churn. How to

upgrade to 6.0? Data is a new currency: In a Big Data Era data is a new "currency". Who owns quality data sets the market rules. Extend Customer 360 degree view by explaining how the Customer will personally benefit from sharing his or her data. Based on Client's declared preferences and actual behavior make a persuasive value content as a proposition in a context through customized Customer Journey across touch points of their buying cycle. Leverage multichannel attribution to give credit where credit is due (particular touch points in a conversion path) so you get meaningful report on how effective is interaction based on collected data (Mike Robertson, Ewelina Ciach, 2015).

Power of Big Data is in Analytics: Before you come up with actionable insights and operationalize them into automated business rules of Next Best Action communication you should integrate structured and unstructured data. Then define the high-value business question that Organization want and can do something with the answer. Under constrained explorations in Big Data Lake find opportunity signals that convert into sales. Develop segments and buyer personas to map the decision diagram of end-to-end Customer Journey for each type of targeted audiences. Continuous test and learn with marketing tactics to optimize campaign flowcharts and programs, because the more methods and approaches are taken, the more influential communication will be. Understanding the impact of each channel on the ultimate conversion enables business-backed, hypothesis-driven execution of agility approach (Mike Robertson, Ewelina Ciach, 2015).

Personalized Customer Service: is Marketing 6.0 ultimate goal function to best serve the Customer in the appropriate moment. Marketing is now going beyond sales, but still influences the purchase process and revenue generation (Mike Robertson, Ewelina Ciach, 2015).

Marketing accelerates at the speed of light: technologies, channels, opportunities, but can we keep up with so many new things? And if we do, will we be able to sell this internally and then, make the most of it? Ewelina Ciach, Senior Value Advisor & Team Lead for Customer Engagement Solutions at SAP bets we can. And her favourite success stories come from the gaming industry. Find more on how technology can support marketing in an exclusive interview she has offered to Marketing Focus in her recent visit in Romania (Redactia, 2017).

What is Marketing 6.0 and how many organizations in Europe/globally have the right tools to perform at this level? Marketing 6.0 is the empathic engagement of the Client. It evolved from inbound contextual communication. Before this, we had era of outbound marketing to clearly defined client What drove this evolution of marketing maturity was definitely the quest for results and rapid advancements of technology, which enabled us to use real-time predictive models. Next best action scores give 6 times better outcomes than segmentation for top 0,5% of population. Model based targeting decreases cost of campaigns due to lowering number of leads and opt-outs. Adaptation of marketing 6.0 tools among companies vary between 5 and 16%. Just a limited segment of 5% companies appear to face no challenges with gaining value from their customer data and only 16% of marketers currently have the capability to capture customer intent and deliver real-time, behaviour-based marketing across all channels (Redactia, 2017).

### 3. The innovation business model: Marketing 6.0

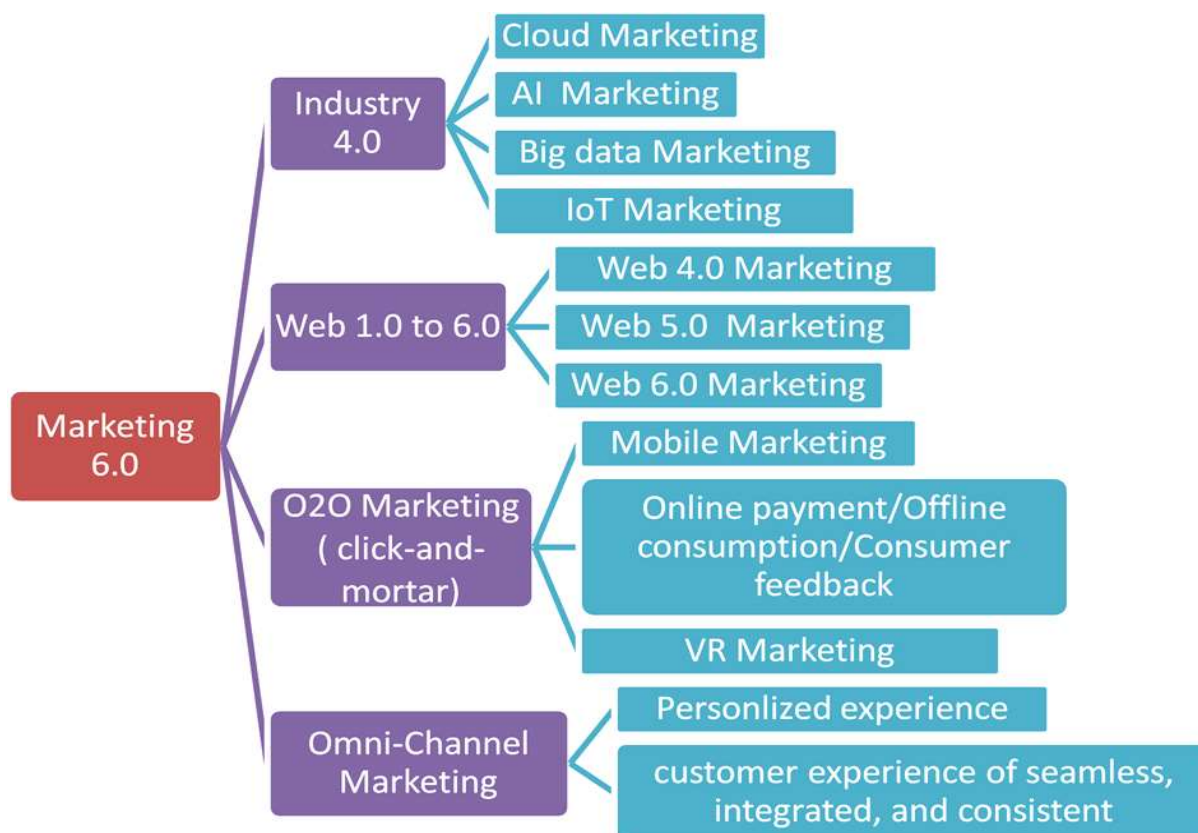
According to above comprehensive literature review, the study constructs an innovation business model: Marketing 6.0 as figure 1. There are four essential dimensions in the marketing 6.0 model which includes industry 4.0, web 1.0 to 6.0, O2O marketing (click-and-mortar), omni-channel marketing.

Furthermore, Industry 4.0 includes Cloud Marketing, AI Marketing, Big data Marketing, IoT Marketing; web 1.0 to 6.0 includes Web 4.0 Marketing, Web 5.0 Marketing, Web 6.0 Marketing; O2O marketing (click-and-mortar) includes Mobile Marketing, Online payment/Offline consumption/Consumer feedback, VR Marketing; omni-channel marketing includes Personalized experience, customer experience of seamless, integrated, and consistent (Figure 1).

### 4. Conclusions

The study provided an overview from the evolution of the Web 1.0 to web 6.0; marketing 1.0 to marketing 6.0; industry 4.0, O2O Marketing (click-and-mortar); Omni-Channel Marketing. Finally, the study constructs an innovation business model: Marketing 6.0. The characteristics of the model are introduced and explained. It is concluded the model as an integrated marketing model has had much progress since marketing 1.0 to 6.0 and web 1.0 to 6.0 and it is moving toward using the techniques of artificial intelligent (AI), Internet of Things (IoT), cloud computing, and big data analysis; O2O Marketing (click-and-mortar): Online payment/Offline consumption, Consumer feedback, VR Marketing; omnichannel marketing etc. to be as a massive integrated model of highly intelligent interaction with customer in close future.

According to (Redactia, 2017), to drive omnichannel campaigns and begin to use real-time predictive analytics to further improve promotions, campaigns, and general customer interactions with owners and customers. An omni-channel approach involves all business processes such as marketing, payments, supply chain and service. At the organizational level problems are caused by siloed data, inflexible legacy systems and lack of process orchestration. Marketers face challenges to be truly omnichannel in both direction, to communicate seamlessly and to get responses real time. With payments there is always a trade-off



**Figure 1:** An innovation business model: Marketing 6.0

between variety of mobile payment options and protecting own margins and profits. Supply chains need to respond to customer rapidly changing needs while being compliant. 7% say that valuing their time is the most important thing a company can do to provide them with good service. Marketers face challenges to be truly omnichannel in both direction, to communicate seamlessly and to get responses real time. A firm should start with consistent customer centric strategy. By discovering 'personas' - customers segments and their characteristics - which are beyond traditional demographic-based information. We usually describe four to six major personas which covers about 80 percent of the customer base. Then we draw a customer journey's map to identify the important and often hidden pain points and resulting areas of opportunity for

redesign. Technology enables delivery of personalized services in digital economy. Deploying technology is a necessary condition but not sufficient to succeed. Technology enables delivery of personalized services in digital economy. Successful offering in terms of profitability and market valuation requires to tie digital adoption with transformation of management and business operations. Hi-tech; banking and retail perform better than average 26% in terms of profitability and 12% in terms of market capitalization (Redactia, 2017).

You must push the boundaries to meet customer expectations in the Marketing 5.0 era. To succeed, you need to leverage data to create personalized experiences that offer convenience, build relationships, and deliver seamless experiences that delight (David Saef,

2015). In today's hyper-connected marketing environment, Kotler says the customer journey is to move from aware (I know about the product), to appeal (I like the product), to ask (I'm convinced about the product), to act (I'm buying the product) to, finally, advocate (I recommend the product) (Michael Krauss, 2017). In the Marketing 6.0 era, you need to integrate humanities and technology into a total innovation business model: omnichannel marketing. ♦

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## Summary

Mục tiêu của nghiên cứu này là tổng kết các lý thuyết về Công nghiệp 4.0, Web 1.0 tới 6.0, marketing O2O (kết hợp cả trực tuyến và ngoại tuyến), marketing đa kênh, Marketing 1.0 tới 6.0 và tìm hiểu những phương diện quan trọng trong mô hình marketing 6.0. Cuối cùng, nghiên cứu xây dựng mô hình kinh doanh đổi mới: Marketing 6.0. Có bốn phương diện quan trọng trong mô hình marketing 6.0 gồm Công nghiệp 4.0, Web 1.0 tới 6.0, O2O marketing và marketing đa kênh. Ngoài ra, Công nghiệp 4.0 bao gồm Marketing điện toán đám mây, Marketing Trí thông minh nhân tạo, Marketing Dữ liệu lớn, Marketing Internet vạn vật; web 1.0 tới 6.0 gồm Marketing Web 4.0, Marketing Web 5.0, Marketing Web 6.0; O2O marketing gồm Marketing di động, Thanh toán trực tuyến/ Tiêu dùng ngoại tuyến/ Phản hồi khách hàng, Marketing Thực tế ảo; marketing đa kênh gồm trải nghiệm cá nhân hóa, trải nghiệm khách hàng liên tục, tổng hợp và nhất quán.