Blockchain Technology In Marketing Sector – A Tows Matrix Analysis

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Abstract: Emerging revolution in the world by the way of digitalization in various sectors exists in the name of “digital era”. This revolution slowly has become a part of day to day life especially in marketing sectors. Blockchain mechanism is one of the upcoming major revolutions in India by creating positive changes in every one’s life. Blockchain is a complex technology that enables decentralization of digital information at the same time doesn’t allow one to copy the information so, it is also called second internet by many experts. The term blockchain is derived from cryptography where a block implies validating transaction and chain is referred to linking all the transactions through technology and hence blockchain creates a permanent record of all types of data. Many digital marketers call it as new type of internet with huge implications. This paper attempts to understand the concept of blockchain in the digital marketing sectors by bringing out the strength, weakness, opportunities and the possible threat with regard to its adoption in our country.

Key Words: Blockchain, TWOS Analysis, Marketing

1. Introduction

Blockchain Technology (BT) in financial markets is a revolutionary change in the digital era. It is an intensive mass technology which will create unexpected change all over the world. BT is expected as a strategic tool by every marketer and it is been called as a disruptor of digital marketing. It plays a significant role in tackling several issues in industries, especially in marketing sectors. This article’s main focus is on building on the TWOS analysis for the adoption of Blockchain in marketing sectors.

2. Review of Literature

Importance of Blockchain Technology

A report by Ernst and Young has stated that Blockchain is expected to be adopted in the next upcoming years and it will create technological innovations and disruption (Gordon, 2018). As Blockchain technology is a new hype that brings twists and turns in Indian economy. It is essential to understand the meaning of it from the findings of various experts. Table 1 presents a compilation of different findings on Blockchain technology by various experts. In a nutshell Blockchain is a technology that enables peer-to-peer transmission and encryption of any kind of transaction without any centralized authority to validate it (Michael, 2017).
<table>
<thead>
<tr>
<th>Experts</th>
<th>Blockchain Technology At Glance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ginni Rometty</strong> (2017)</td>
<td>What the internet did for communications, blockchain will do for trusted transactions.</td>
</tr>
<tr>
<td><strong>Melanie Swan</strong> (2017)</td>
<td>Blockchain is just a new form of decentralized database.</td>
</tr>
<tr>
<td><strong>Satoshi Nakamoto</strong> (2017)</td>
<td>Blockchain is an undeniably ingenious invention – the brainchild of a person or group of people.</td>
</tr>
<tr>
<td><strong>Vitalik Buterin</strong> (2017)</td>
<td>Blockchain solves the problem of manipulation. In the West, people in Africa, India, the Eastern Europe and Russia trust Google, Facebook, or their banks. But the rest of the worlds do not trust organizations. Blockchain’s opportunities are the highest in these countries yet.</td>
</tr>
<tr>
<td><strong>Saqr Ereiqat,</strong> (2018)</td>
<td>Blockchain is going to do to transactions what Internet did to data. It will impact all industries that use transactions and change how we exchange all kinds of data as well as assets.</td>
</tr>
<tr>
<td><strong>Aalekh Sharan,</strong> (2018)</td>
<td>Blockchain technology can reduce the possibility of getting hacked as well as help in interlinking various data records. Laws need to be framed first regarding its use. One idea that we look forward is a national infrastructure for Blockchain.</td>
</tr>
<tr>
<td><strong>Subrat Mohanty,</strong> (2017)</td>
<td>Blockchain has the potential to disrupt industries and change the way financial services are carried out. The distributed ledger technology and the benefits of its immutability pave the way for participants to design direct collaborations in common areas of interest instead of relying on any intermediary.</td>
</tr>
<tr>
<td><strong>Tiana Laurence</strong> (2017)</td>
<td>Blockchain is a data structure that makes it possible to create a ledger of data and share it among a network of independent parties.</td>
</tr>
<tr>
<td><strong>Don &amp; Alex</strong> (2017)</td>
<td>The Blockchain is an incorruptible digital ledger of economic transactions that can be programmed to record not just financial transactions but virtually everything of value.</td>
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</table>

**Types of Blockchain**

The Blockchain can be classified as public, private and consortium and private Blockchains. Public Blockchains: A platform where every participant would be able to read on and write to. Consortium Blockchains: This platform is partially like the private
blockchain. Instead of allowing any one person/company to have full control and participate in the verification of transactions process, some specific number of nodes are selected in a predetermined manner and the control is vested on them. For example, the UN outsource its transactions and voting system to Blockchain and allowing each member country to have a verifying node. Private Blockchains: A platform where only the owner of the blockchain has the right to making any changes in rules or other terms. For example, claim settlement in a private insurance company (Gupta, 2017).

Applications of Blockchain

Blockchain technology is utilized in various industries all over world. Blockchain is emerging in many organizations like ANZ (Hong Kong-based financial technology company), ASX (Australia's primary securities exchange), Enome.io (Take control of your medical history), Australia Post (an Australian government-owned corporation that provides postal services), Capgemini, Power Ledger, Ledger Assets, IBM, Full Profile, Data61, Common wealth Bank, Westpac, webjet.com.au, and NZX (Capital market company). These organization are increasing the application for blockchain in supply chain management, digital identity management and many more beneficial areas (Future[inc], 2017). Blockchain technology is expected to play a vital role in healthcare for the encoding of all personal health records and it can also be kept confidentially through HIPPA (Health Insurance Portability and Accountability Act) law.

In addition, the blockchain solution will create strong impact on chartered accountants when it is combined with appropriate data analytics. It could help with the transactional level assertions involved in an audit, and the auditor’s skills would be better spent considering higher-level questions (IT Faculty, 2017). One of the leading logistics company in New York has joined with the BiTA (Blockchain in Transport Alliance) to improve technology-enabled transportation and supply chain management services through blockchain mechanism (Dow Jones & Company Inc, 2017). In India, the early adopters are Yes Bank and Bajaj electricals. Yes bank wanted to bring in blockchain solution for responding their client which will also help in measuring its impact. Many industries such as automotive, energy, agriculture, the public arena and government are trying blockchain solutions to checkout its potential capacity (Dua, 2017).

Blockchain is a boon to fashion marketing industry and Intellectual property rights as no one can hack or copy any data. The information is stored in a common platform and there is no specific organization or host in this. Hence, IP rights and contracts are easily authenticated from duplicate documents (Burstall & Clark, 2017). PEST analysis was made which summarized description of Political, Economic, Social And Technical aspects of Blockchain Technology adoption. The key drivers from PEST analysis are transparency, costs, user control and quality. This analysis had derived few drawbacks regarding the blockchain such as Regulatory Status, Volatility, Privacy & Security and innovation (Woodside & et al, 2017). In addition, Blockchain technology can create new combinations of institutional reforms which will offer practical solution for the land reforms in India (Ghosh & Patel, 2017). Blockchain shows it’s potential usage in many different fields and some of them are Domain registration (Namecoin), Trading Assets (Colored Coin), Cloud Storage, Voting, Crowd funding, Car sharing, Gambling and prediction markets and Internet of Things (Muller & Hasic, 2016).

Blockchain in various industries

BT is considered as a vital tool that creates changes and becomes a solution many organizational issues related to the various digital payment platforms, consumer behaviour towards payment technologies and the issues in designing technologies in the payment system. BT lays emphasis on decentralization and the underlying distributed
database technologies which act as a new business model (Lindman, Rossi, & Tuunainen, 2017). In addition Blockchain becomes an excellent tool in handling digital supply chain management. The Blockchain functionalities are transaction, ledger, smart contracts and Hash can be integrated with digital signature, order confirmation, 3D documents, ordering, M2M IOT data transfer and many more ideas of supply chain integration (Korpela, Hallikas, & Dahlberg). Blockchain is vital tool of maintaining records and database for long period of time. This aspect is a boon to many healthcare related industries such as pharmacies, hospitals, health insurance firms, general insurance firms etc.

3. Research Methodology

This article is an attempt to bring out the role of blockchain technology in marketing using the critical literature review of articles published during 2016-2018. After an intensive study it easier to draft the TWOS analysis which is considered as the next version of SWOT analysis where we study strength, weakness, opportunity and threats.

TWOS analysis is the reversed version of SWOT and incorporates of but where there is inclusion of external (threats and opportunities) and internal (strengths and weaknesses) environment factors. This matrix has four combined variables such as

a) Strengths and Opportunities (Denoted as SO):

All the strengths are converted into opportunities and that diversifies the understanding. The SO is also known as Maxi-Maxi Strategy where it can use the internal strength to obtain grab the opportunities in the market.

b) Weaknesses and Opportunities (Denoted as WO):

This segment of the analysis indicates the options through which weaknesses could be overcome and then take advantage of opportunities. This WO is called as mini-maxi strategies which is essential segment because if the weaknesses are not overcome then there will be an exploitation of the opportunity.

c) Strengths and Threats (Denoted as ST):

The segment is an exploration of reducing/avoiding threats with help of the potential strengths and this is also known as maxi-mini strategy.

d) Weaknesses and Threats (Denoted as WT):

Through this segment the matrix attempts to minimize the weaknesses to avoid possible threat which is also called as Mini-Mini strategies.

The TOWS analysis is a better version of SWOT analysis because it is not just listing the strengths, weaknesses, opportunities and threats instead it enable to find the four aspects in various combinations and when we understand the threats first, then it’s easy to tackle other aspects easily (Marketing Teacher, 2018). The style of presenting this pertains to the subjectivity of the content and hence through this article, it’s an attempt is made to understand the TOWS for Blockchain Technology in Indian Marketing Sector and in the Indian Banking System.

4. Analysis and Interpretation

The great challenge of any marketer is to understand what the consumers prefer and how they react in the act of purchase. The next challenge of digital marketing is content
and making the customers understand the validity and truth in it. Through the Blockchain technology there many pros as well as cons which is been understood through an extensive literature review now from Table 2 which explains the TOWS matrix Analysis for the Blockchain in Marketing Sector.

**Table 2. TOWS Analysis Of Blockchain In Indian Marketing Sector**

<table>
<thead>
<tr>
<th>Internal Environment</th>
<th>Strength</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>External Environment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opportunities</td>
<td>• Building Up Trust</td>
<td>• Customer privacy</td>
</tr>
<tr>
<td></td>
<td>• Brand Your Company As An Innovator</td>
<td>• Eliminate The Middleman</td>
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<tr>
<td></td>
<td>• Marketing Automation</td>
<td>• Predictive Marketing</td>
</tr>
<tr>
<td></td>
<td>• Personalization</td>
<td>• Quality Influencers</td>
</tr>
<tr>
<td>Threats</td>
<td>• Ad Fraud</td>
<td>• Heavy competition</td>
</tr>
<tr>
<td></td>
<td>• Data Protection</td>
<td>• Technological changeover</td>
</tr>
<tr>
<td></td>
<td>• Accurate identification of targeted audience</td>
<td>• Costlier technology</td>
</tr>
<tr>
<td></td>
<td>• Better CSR</td>
<td></td>
</tr>
</tbody>
</table>

5. **Strengths and Opportunities (Denoted as SO):**

**Building Up Trust**

The major strength of Blockchain technology is transparency and this strength is transformed into an opportunity in marketing. The major gap between manufacturer and consumer is lack of transparency and it a barrier to gain loyal consumers. Hence through Blockchain adoption in marketing enables one to bring transparency in every phase of product/services and that becomes a stepping stone to attain the trust of any customer. Every action of the manufacturer will be under surveillance which becomes an opportunity and it creates a great trust and it gives assurance amongst customers.

**Brand Your Company As An Innovator**

Blockchain technology is most advanced for c++ which could be implemented only with advanced technical skills and it is a platform to prove oneself as an innovator. This strength of Blockchain technology becomes a great opportunity to attract all tech-lovers, that is generation y and z consumers who are mostly the targeted audience in upcoming years. Hence, through adoption of this technology by any marketers it will become a USP and it grabs the attention amongst everyone.

**Marketing Automation**

In Blockchain mechanism, the data validation changes in a block only after all the system verification. This aspect of Blockchain technology is utilized by the marketer in marketing automation which is going to be the most innovative manner of marketing (retainly app is currently undergoing in this process marketing automation through Blockchain Technology).
Personalization

One of the major strength of Blockchain Technology it is elimination of intermediaries which is the first step in understanding the customer expectation by the marketers and then providing them personalized products/services. Blockchain also helps in observing the customer database that enables the marketers to work on the customer’s likes and dislikes.

6. Weaknesses and Opportunities (Denoted as WO):

Customer privacy

Being an all time transparent will not work for any marketing aspect, because the customers prefer privacy. Blockchain Technology adoptions types are public and private, which solve the weakness of any marketer. Hence, it supports the marketer to provide privacy through means of private Blockchain adoption and it also enables privacy to the customers.

Eliminating The Middleman

Middlemen are one of the main cost drivers for any business and which is the main cause for minimizing returns. The Blockchain adoption will store all database permanently and can’t make any new modification to any data. Hence, it’s a goodbye to all middlemen as the customer is under direct contact.

Predictive Marketing

The permanent database gives tremendous power to the marketer to predict what the customer’s expectation is and this will help in need recognitions. Blockchain will become technique that helps to identify the business leader and also every B2B market globally. On the whole, Blockchain adoption is the platform that will lead business to success through a visionary approach.

Quality Influencers

Identifying a real influencer is a challenge in the influencer marketing campaign and with Blockchain Technology; it is easier in identifying true and quality influencers. This also helps in reducing the unwanted fake influencer and it provides new dimension to influencer marketing campaign.

7. Strengths and Threats (Denoted as ST):

Ad Fraud:

Ad-fraud is a serious threat in digital marketing strategies. Through the strength of Blockchain’s feature, it becomes an opportunity to reduce fraud activity because this ad – fraud is creating huge loss and also breaks the trust of many loyal customer. In addition, Blockchain Technology also protects brands from unsavory content (Henderson).

Data Protection

Blockchain helps in data protection and also provides complete power to the store large volume of data with protection of identity. For instance in GDPR compliant usage model of Blockchain, it provides limited time and limited use to the company to access the data and can be regulated by customers.
Accurate identification of targeted audience

It helps to bring out real targeted audience, with a focus on personalization and make them loyal customers. These loyal customer automatically become a loyal ambassadors and finally they will bring more new customers and they will be able to stay firmly in the market as a brand leader.

Better CSR

Maintaining CSR activity is a great way of self promotion and the best way of contribution to the society. Blockchain technology is an amazing tool that will help in tracking and measuring the accountability for every action. All the CSR implementation would have external verification because it is an open distributed ledger. The main strength of any organization is CRM but major threat is whether it reaches the society as expected. Hence, blockchain technology is the best way to track and measure every action made.

8. Weaknesses and Threats (Denoted as WT):

Heavy competition

Marketing is the most competitive field, especially when it’s not implemented rightly it will become a drawback to the business. Blockchain will be a strategy to face the competitive world with technical support and accuracy.

Technological changeover

Obsolete Technology is one of the major issues and switching over to new technology is a great challenging task to marketers. While facing this challenge wisely, these marketers can attract all technology lovers. Blockchain is a decentralized technology, adapting to it in quick time will lead to great innovation in the business. When the blockchain marketing is continued, this becomes a revolution and can be called as decentralized marketer.

Costlier technology

As the technology needs high investment and thorough knowledge while execution, there may be only a few users and this by itself creates a new path to overcome the competitors. In addition, the small and medium scale enterprisers will not be able to utilize this strategy, hence it’s a boon to reduce and control the competition.

Supply chain management

Blockchain adoption is basically decentralized mechanism which means there is no single node in the network which can approve or authorize a modification in the database. This verification is a boon and it becomes an opportunity to the marketers, where they can use this distributed ledger and the transparency feature will be a platform to track the shipment and all other supply chain process. Many of the researchers consider handling supply chain as major challenge where the blockchain technology will help in managing it wisely.

9. Conclusion

“Blockchain Technology (BT) - The World Wide Ledger” is the new yardstick for future marketers and all business people (Tapscott & Tapscott, 2016). BT in finance is been the current technology execution in country like India but this technology.
Blockchain is a wonderful technology which will create many changes and it will be disruptor to all fraud activities in marketing world especially the digital marketing space. This study is just an attempt that initiated to identify the Threats, Opportunity, Weaknesses and Strengthening aspects of Blockchain Technology adoption in Marketing. There are still more avenues to explore in this topic for the future researchers as now only many companies are popping out with trial version of blockchain technology adoption in their marketing strategies. On the whole the forthcoming era will be in prosperity with the adoption of blockchain technology adoption in finance, business, healthcare, education, governance, and many other fields.

6. References