

# **A COMPREHENSIVE ANALYSIS ON TAXING VIRTUAL DIGITAL ASSETS IN THE WORLD OF METAVERSE**

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## **ABSTRACT**

*The rage in today's tech-world is all about digital reality and its potential in transforming the world. This presents an arduous task before the legislature to fine tune the existing laws to regulate activities undertaken virtually. The aim of the paper is to study and analyze how the present taxation laws can be applied in the parallel cyber universe, focusing on the imposition of tax liabilities on the Virtual Digital Assets.*

**Key Words:** *Metaverse, Virtual Digital Assets (VDA), Non-Fungible Tokens (NFT), Income Tax, Goods and Service Tax, Virtual Reality, Taxation, Jurisdiction, Ownership.*

## **INTRODUCTION**

***“It has become appallingly obvious that our technology has exceeded our humanity.”***

***-Albert Einstein, Scientist***

The Concept of Metaverse is still at its nascent stage with companies like Meta, Microsoft, NVIDIA, Sandbox etc. and others who are racing to develop and establish their brand through it. It has gained momentum after the CEO of the biggest social media organization made a statement that the ‘Metaverse’ would be the next big thing after the Internet.<sup>1</sup> The virtual parallel universe has proved to be a breakthrough revolution in the field of technology providing a broad range of applications in various domains for improving the quality of the services provided as well as increasing the revenue earning capacity of the businesses and individuals. In other words, it extends beyond the entertainment aspect and enables assistance in real world operations. This is no exaggeration as recently a doctor has provided remote surgical assistance in treatment for breast cancer through Augmented Reality (AR)

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<sup>1</sup> Sascha Kraus et al., “Facebook and the Creation of the Metaverse: Radical Business Model Innovation or Incremental Transformation?,” *International Journal of Entrepreneurial Behavior & Research*, 2022.

Technology<sup>2</sup>. There are wide discussions about its potential to generate revenue as there is a faster adoption of technology by individuals and businesses alike.<sup>3</sup> With such serious implications, it is important to consider its impact early on and provide for it in our regulations.

There is already a talk of applying various civil and criminal laws to the virtual space of Metaverse to enable orderly and disciplined interactions.<sup>4</sup> Few jurisdictions have started levying tax on the goods and services in Metaverse by adding to and amending their laws<sup>5</sup>. This paper aims to decode what is so unique about Metaverse and how it works, and how various activities conducted therein, right from real estate to trading virtual goods and even online education, can be subjected to taxation under various Indian laws. Towards the end, we have also discussed various emerging sectors in Metaverse and its expected future impact on the economy.

## **WHAT IS METAVERSE?**

The Metaverse is not altogether a new concept as it dates back to 1992, when Author Neal Stephenson coined this term in his fiction, *Snow Crash*.<sup>6</sup> This trending term is derived from the combinations of words, “*meta*” (which means *transcending* or *going beyond*) and “*universe*”, together describing the post-reality universe, a perpetual and persistent multiuser environment merging physical reality with digital virtuality, and enabling multisensory interactions with digital objects and people through virtual, augmented and extended realities.<sup>7</sup>

In the Metaverse, all individual users own their respective avatars, in analogy to the user’s physical self, to experience an alternate life in a virtuality that is a metaphor of the user’s real world. It must be noted that there does not exist only one virtual world but many. It was

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<sup>2</sup> [Nicole Buckle, Surgery in the Metaverse, Doctor is 900 Kilometers Away, \(Beincrypto\), 12th May 2022](#)

<sup>3</sup> EY Global, [‘The metaverse promises to be a hive of economic activity. But how will this virtual world be taxed in the real world’](#), EY Global, April 2022

<sup>4</sup> Sexual harassment in Metaverse is already discussed widely following a court judgement in England: [Lindsay Dodgson, A Roblox YouTuber was fined and permanently banned from the game by a US court after the company accused him of terrorizing users and its employees, Jan 2022](#)

<sup>5</sup> [Taxes become more complex when entering the metaverse](#), Baker Mckenzie, October 2022

<sup>6</sup> Judy Joshua. Information Bodies: Computational Anxiety in Neal Stephenson’s Snow Crash. Interdisciplinary Literary Studies, 19(1):17–47, 2017. Publisher: Penn State University Press.

<sup>7</sup> William Burns III. Everything you know about the metaverse is wrong?, Mar 2018

primarily designed to enable people to deepen and extend their social connections digitally and also for entertainment purposes, like virtual gaming. With the advancement in technologies, inclusion of sensors, intuitive headsets and haptics, its applications have been widened.<sup>8</sup> Presently, Metaverse is developed in such a manner that it is no less than the real physical world as all activities such as real estate, education, business, currency trading, tourism, health care, workplace or collaboration, art, transportation, social commerce, concerts and all other entertainment stuffs can be carried out virtually without any physical aspect.

Traditionally, there is no definition of Metaverse as such and only discussions on the concept. But today's experts have attempted to define Metaverse. Let's take a look at them.

Luke Shabro (Futurist & Deputy Director of the Mad Scientist Initiative - Army Futures Command) defines Metaverse as, "*a nebulous, digitally mixed reality with both non-fungible and infinite items and personas not bound by conventional physics and limitations.*"

Author and Investor Matthew Ball offers this comprehensive definition of the Metaverse, in his book titled *The Metaverse: And How It Will Revolutionize Everything*: "*A massively scaled and interoperable network of real-time rendered 3D virtual worlds that can be experienced synchronously and persistently by an effectively unlimited number of users with an individual sense of presence, and with continuity of data, such as identity, history, entitlements, objects, communications, and payments.*"

These definitions essentially focus on four aspects of Metaverse- environment, interface, interaction, and social value, which describe the uniqueness of Metaverse.

The key features of Metaverse are: *Persistent*, in the sense, it exists regardless of the user's physical presence; *Self-sustaining*, meaning that users can earn within the Metaverse and pay for their utility; *Interoperability*, in the sense, it helps users move their virtual items, including avatars, from one Metaverse project to another; *Real-time* as it allows users to relish live experiences; and *Infinite*.<sup>9</sup>

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<sup>8</sup>Elif Ayiter. Further Dimensions: Text, Typography and Play in the Metaverse. International Conference on Cyberworlds, September 2012.

<sup>9</sup> Mathew Ball, "The Metaverse and How It Will Revolutionize Everything," July 2022

## **NEED FOR TAXATION**

Every transaction that takes place in the Metaverse generates value for natural persons or legal entities connected to the relevant transaction existing in the real world. This empowers a man to carry out his livelihood virtually and creates the same environment as in reality. Recent research suggests that the market opportunity in the Metaverse may be worth over \$1 trillion in annual revenue.<sup>10</sup> As a result, the Metaverse has its own economy, the study of which is called *Metanomics* (i.e.) the Economics of Metaverse.<sup>11</sup> The products and services that will define Metaverse are those that transform users into owners thereby forming an ownership economy. Metaverse will likely incorporate future iterations of crypto, NFTs and other blockchain-based digital assets and thereby create a robust economy. Hence, Metaverse should be subjected to taxation. Tax authorities will need the right tools to effectively levy and collect tax arising from these transactions, or risk significant amounts falling into this virtual tax gap.

## **TAXABILITY OF VARIOUS OPERATIONS CARRIED OUT IN METAVERSE**

### **1. Real estate**

One of the revolutionary aspects of Metaverse is its potential to combine the capabilities of virtual reality, Blockchain and Non-Fungible Token (NFT) technology to create a virtual space and sell it to buyers for consideration in terms of digital or fiat currencies.<sup>12</sup> But this does not mean that it has an unlimited supply of land. As per the findings of an international market research report, the size of the global Metaverse real estate market is expected to grow at a CAGR of 31.2% during 2022-2028.<sup>13</sup>

#### **A) Transfer of virtual lands**

The lands in the Metaverse are considered to be '*non-fungible tokens*' (*hereinafter referred to as NFTs*) because of the following features: (1) it is measured in tiles, which is the smallest measurable unit; (2) each tile cannot be broken down further; and (3)

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<sup>10</sup> Grayscale Research, November 2021, "THE METAVERSE - Web 3.0 Virtual Cloud Economies"

<sup>11</sup> Cornell Chronicle, '[Students get a 'Second Life' in the first 'metanomics' course](#)', October 2007

<sup>12</sup> [Elizabeth Howcroft, "Virtual Real Estate Plot Sells for Record \\$2.4 Million," Reuters, 2021](#)

<sup>13</sup> [Brandessence Market Research and Consulting Private Limited, January 2022](#)

every tile has a unique address (i.e.) Block ID and geo location in the form of Longitude/Latitude.<sup>14</sup>

The Finance Act, 2022 has made few amendments to the existing laws in order to impose tax liabilities on Virtual Digital Assets (hereinafter referred to as VDAs). It has inserted a new provision - Section 2(47A) which defines VDA as follows: *“Virtual Digital Asset” means: (a) any information or code or number or token (not being Indian currency or foreign currency), generated through cryptographic means or otherwise, by whatever name called, providing a digital representation of value exchanged with or without consideration, with the promise or representation of having inherent value, or functions as a store of value or a unit of account including its use in any financial transaction or investment, but not limited to investment scheme; and can be transferred, stored or traded electronically; (b) a non-fungible token or any other token of similar nature, by whatever name called; (c) any other digital asset, as the Central Government may, by notification in the Official Gazette specify:*

*Provided that the Central Government may, by notification in the Official Gazette, exclude any digital asset from the definition of Virtual Digital Asset subject to such conditions as may be specified therein.*

*Explanation.—For the purposes of this clause,—*

*(a) “non-fungible token” means such digital asset as the Central Government may, by notification in the Official Gazette, specify;*

*(b) the expressions “currency”, “foreign currency” and “Indian currency” shall have the same meanings as respectively assigned to them in clauses (h), (m) and (q) of section 2 of the Foreign Exchange Management Act, 1999.*

Earlier there was confusion as to treatment of NFTs which are notified by the Central Government but the Central Board of Direct Taxes (CBDT) has issued a notification clarifying what constitutes an NFT. As per the same, a token which qualifies as VDA is a NFT, but it shall not include those NFTs whose transfer results in the transfer of ownership of underlying tangible asset and the contract for the same is legally

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<sup>14</sup> Demystifying Non-Fungible Tokens (NFTs), The European Union Blockchain Observatory & Forum; [Tax on Metaverse Land | The What, Why and How Much?](#), July 2022

enforceable.<sup>15</sup> A land in the Metaverse is clearly an intangible asset and the same is sold as a token. Hence, a virtual land is considered as an NFT irrespective of its being notified by the Government since it falls under the purview of above notification. It can therefore be said that *“All NFTs are VDAs but all VDAs are not NFTs.”*

It must be noted that VDAs are not included with the definition of capital assets provided in Section 2(14) of the Income Tax Act, 1961 though the Explanation to Section 56 is amended to include Virtual Digital Assets within its purview (*w.e.f* 1st April, 2023).<sup>16</sup> This can be interpreted to mean that the government does not want the digital assets to form a part of the capital assets but created a separate provision to enable differential treatment between them. Hence, a land in the Metaverse cannot be considered on par with a land in the real world but only as a digital asset. In fact, Section 115BBH<sup>17</sup> was separately inserted to impose a flat 30 percent tax on the transfer of VDA, plus surcharge and cess, with only deduction of cost of acquisition. It must further be noted that Section 194S which states that any person responsible for paying to any resident any sum by way of consideration for the transfer of a VDA (including NFTs or virtual land) shall deduct tax at the rate of 1% of such sum. It reads as follows: *'194S Payment on transfer of virtual digital asset.—(1) Any person responsible for paying to any resident any sum by way of consideration for transfer of a virtual digital asset, shall, at the time of credit of such sum to the account of the resident or at the time of payment of such sum by any mode, whichever is earlier, deduct an amount equal to one percent of such sum as income-tax thereon:*

*Provided that in a case where the consideration for transfer of virtual digital asset is—*

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<sup>15</sup> CBDT Notification No. S.O. 2959 E

<sup>16</sup> Sec 56 Explanation.—For the purposes of this clause,—

(b) the expression "property" shall have the same meaning as assigned to it in clause (d) of the Explanation to clause (vii) and shall include virtual digital asset.'

<sup>17</sup> Section 115BH of Income Tax Act, 1961: Tax on income from virtual digital asset.—(1) Where the total income of an assessee includes any income from the transfer of any virtual digital asset, notwithstanding anything contained in any other provision of this Act, the income-tax payable shall be the aggregate of,—the amount of income-tax calculated on the income from transfer of such virtual digital asset at the rate of thirty per cent.; and the amount of income-tax with which the assessee would have been chargeable, had the total income of the assessee been reduced by the income referred to in clause (a).

(2) Notwithstanding anything contained in any other provision of this Act,—

no deduction in respect of any expenditure (other than cost of acquisition, if any) or allowance or set off of any loss shall be allowed to the assessee under any provision of this Act in computing the income referred to in clause (a) of sub-section (1); and no set off of loss from transfer of the virtual digital asset computed under clause (a) of sub-section (1) shall be allowed against income computed under any provision of this Act to the assessee and such loss shall not be allowed to be carried forward to succeeding assessment years.

(3) For the purposes of this section, the word "transfer" as defined in clause (47) of section 2, shall apply to any virtual digital asset, whether capital asset or not.

- (a) wholly in kind or in exchange of another virtual digital asset, where there is no part in cash; or
- (b) partly in cash and partly in kind but the part in cash is not sufficient to meet the liability of deduction of tax in respect of whole of such transfer the person responsible for paying such consideration shall, before releasing the consideration, ensure that tax required to be deducted has been paid in respect of such consideration for the transfer of virtual digital asset.
- (2) The provisions of sections 203A and 206AB shall not apply to a specified person.
- (3) Notwithstanding anything contained in sub-section (1), no tax shall be deducted in a case, where—
- (a) the consideration is payable by a specified person and the value or aggregate value of such consideration does not exceed fifty thousand rupees during the financial year; or
- (b) the consideration is payable by any person other than a specified person and the value or aggregate value of such consideration does not exceed ten thousand rupees during the financial year.
- (4) Notwithstanding anything contained in section 194-O, in case of a transaction to which the provisions of the said section are also applicable along with the provisions of this section, then, tax shall be deducted under sub-section (1).
- (5) Where any sum referred to in sub-section (1) is credited to any account, whether called "Suspense Account" or by any other name, in the books of account of the person liable to pay such sum, such credit of the sum shall be deemed to be the credit of such sum to the account of the payee and the provisions of this section shall apply accordingly.
- (6) If any difficulty arises in giving effect to the provisions of this section, the Board may, with the prior approval of the Central Government, issue guidelines for the purposes of removing the difficulty.
- (7) Every guideline issued by the Board under sub-section (6) shall be laid before each House of Parliament, and shall be binding on the income-tax authorities and on the person responsible for paying the consideration on transfer of such virtual digital asset.

*Explanation.*—For the purposes of this section "specified person" means a person,—

- (a) being an individual or a Hindu undivided family, whose total sales, gross receipts or turnover from the business carried on by him or profession exercised by him does not exceed one crore rupees in case of business or fifty lakh rupees in case of profession, during the financial year immediately preceding the financial year in which such virtual digital asset is transferred;

(b) being an individual or a Hindu undivided family, not having any income under the head "Profits and gains of business or profession".'.

### **B) Renting of Virtual Lands for Non-commercial purposes**

It can be quite true that avatars can have residential places in Metaverse i.e., a house property and it may also rent it to other avatars or corporations for various purposes. But as of now, the only taxable event for the VDAs is transferability and there is no talk of renting. The present provision which deals about the income from house property is not wide enough to include virtual lands within its ambit. Section 22<sup>18</sup> mandates that a property to be considered as house property, must consist of any buildings or lands appurtenant thereto, focusing on the tangibility of the property. However, virtual lands are intangible in nature and will not be considered as house property for the purpose of taxing rents. This means that no standard deduction of 30% shall be allowed from the rental income<sup>19</sup>.

On the other hand, we can apply the concept of notional extension to consider the virtual property as a house property within the provisions of Income Tax Act, 1961. But as of today, this theory of notional extension is used in the employment law field (It was used to extend sexual harassment laws to the virtual space like video conferencing apps etc.)<sup>20</sup> and is not of extensive nature to be used in other fields.

It needs to be analyzed whether such rent will be considered as income from business/profession or income from other sources. A glance of the provisions dealing with the Profits and Gains from Business or Profession viz., Sections 28 - 44D<sup>21</sup> says that income from renting virtual lands will not be considered as a business income until it is carried out as a business activity. Otherwise, it shall be taxed under the head *'Income from other sources'*.<sup>22</sup> The obligations to maintain books of accounts and get them audited shall also apply.

### **C) Renting of Virtual Land for Commercial Purposes**

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<sup>18</sup> Sec 22 of Income Tax Act, 1961

<sup>19</sup> [Tax on Metaverse Land | The What, Why and How Much? | Taxmann](#), July 2022

<sup>20</sup> Sanjeev Mishra v. Bank of Baroda, S.B. Civil Writ Petition No. 150/2021

<sup>21</sup> Income Tax Act, 1961

<sup>22</sup> Section 56 of Income Tax Act, 1961



Renting of land in Metaverse can be for different purposes such as hosting an event or running an e-commerce entity. In any case, it will be considered as a service under Section 2 (102) of the CGST Act, 2017 which defines ‘services’ as follows: “*Services means anything other than goods, money and securities but includes activities relating to the use of money or its conversion by cash or by any other mode, from one form, currency or denomination to another form, currency or denomination, for which a separate consideration is charge.*” Hence, the current GST tax rate of 18%<sup>23</sup> is applicable to leasing and renting services of virtual land in Metaverse. But a supplier of these services will be subjected to GST Registration upon generating a minimum net revenue of Rs. 20,00,000/-. TDS Charges shall also apply.

## 2. Running an E-commerce business

The services rendered by an e-commerce entity in Metaverse are chargeable under the same regime of GST as applicable to an e-commerce entity operating through Web 2.0 technology like Flipkart.<sup>24</sup> Section 2(44) of the CGST Act, 2017 defines *electronic commerce* as “*supply of goods and services or both including digital products over digital or electronic networks*” and Section 2(45) defines an *electronic commerce operator* as “*any person who owns, operates or manages digital or electronic facility or platform for electronic commerce*”. A glance of the above provisions suggests that the definition is wide enough to include an e-commerce operator existing in the virtual world. Therefore, the e-commerce entity must compulsorily obtain registration under the GST laws in accordance with Section 24 of CGST Act, 2017. The e-commerce operators are also liable to collect tax at source<sup>25</sup> and file return for the same in Form GSTR - 9B.

Further, any income from running an e-commerce business in the Metaverse shall be charged under Income Tax Act, 1961 in the same way an ordinary business income is taxed. Sections 28 to 44 are the relevant provisions accounting profits and gains from business or profession along with TDS Charges under Section 194O of the Income Tax Act.<sup>26</sup> The taxpayer can claim a deduction for all expenses incurred wholly and exclusively in connection with such business.

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<sup>23</sup> GST Notification No. 11/2017-CT(Rate) dated 28th June 2017

<sup>24</sup> ‘[Metaverse: A New Universe I Legal, Regulatory and Tax Issues](#)’, Nishith Desai Associates, July 2022

<sup>25</sup> Section 52 of CGST Act, 2017.

<sup>26</sup> **Section 194-O of Income Tax Act, 1961: Payment of certain sums by e-commerce operator to e-commerce participant** (1) Notwithstanding anything to the contrary contained in any of the provisions of Part B of this Chapter, where sale of goods or provision of services of an e-commerce participant is facilitated by an e-commerce operator through its digital

### 3. Selling of Virtual Goods & services and collectibles in Metaverse

#### A) Can Virtual Goods be considered as NFTs under Income Tax Act, 1961?

Earlier, we saw that the IT Act was amended to tax the capital gains from the transfer of Virtual Digital Assets. The VDAs in Metaverse, which is apparently created using NFT Technology, not only include the precious art and other property of value but may even include a simple virtual dress for your avatar or other things of consumable nature. This does not mean that they are also considered as NFT under the Income Tax Act, 1961. The reason for the same is the intent of the legislature to exclude those items of daily supplies, accessories, clothing, eatables etc. from the definition of NFT and VDA. Section 2(47A) (a) & (b) includes only those properties which “*provides a digital representation of value exchanged with or without consideration, with the promise or representation of having inherent value, or functions as a store of value or a unit of account including its use in any financial transaction or investment, but not limited to investment scheme; and can be transferred, stored or traded electronically.*” Thus, since the above-mentioned items do not store any value or have a unit of account to be used in a financial transaction, they cease to be considered as NFTs under the act.

Let us look into some of the definitions of token.

- a) Oxford Dictionary defines *token* as a round piece of metal, plastic, etc. that you use instead of money to operate some machines or as a form of payment.<sup>27</sup>
- b) According to Collins Dictionary, a *token* is a piece of paper or card that can be exchanged for goods, either in a particular shop or as part of a special offer.<sup>28</sup>
- c) Merriam Webster defines *token* as a piece resembling a coin issued for use (as for fare on a bus) by a particular group on specified terms; or a piece resembling a coin issued as money by some person or body other than a de jure government.<sup>29</sup>

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or electronic facility or platform (by whatever name called), such e-commerce operator shall, at the time of credit of amount of sale or services or both to the account of an e-commerce participant or at the time of payment thereof to such e-commerce participant by any mode, whichever is earlier, deduct income-tax at the rate of one per cent of the gross amount of such sales or services or both.

<sup>27</sup> [Oxford Dictionary](#) (Online)

<sup>28</sup> [Collins Dictionary](#) (online)

<sup>29</sup> [Merriam-Webster Dictionary](#) (online)

A perusal of the above definitions clearly states that a token must essentially be of some monetary value. The CBDT vide Notification defines NFT as a token which qualifies as a VDA. Hence, we could conclude that the above mentioned items cannot in any case be considered as NFT as it fails to be recognised as a token in the first place.<sup>30</sup>

Further, another notification bearing issued by CBDT, listed those items which will not be covered under the definition of NFT, which reads as follows:

*"In exercise of the powers conferred by proviso to clause (47A) of section 2 of the Income-tax Act, 1961 (43 of 1961), the Central Government hereby notifies following virtual digital assets which shall be excluded from the definition of virtual digital asset:*

*(i) Gift card or vouchers, being a record that may be used to obtain goods or services or a discount on goods or services;*

*(ii) Mileage points, reward points or loyalty card, being a record given without direct monetary consideration under an award, reward, benefit, loyalty, incentive, rebate or promotional program that may be used or redeemed only to obtain goods or services or a discount on goods or services;*

*(iii) Subscription to websites or platforms or application."<sup>31</sup>*

This serves as a proof for the above said interpretation as to what constitutes an NFT since the items excluded by the above notification also do not hold any monetary value. Hence, they qualify to be taxed under the GST laws.

### *B) Taxing Virtual Goods and Services under GST*

It is important to classify a thing or an item in Metaverse as a good or a service in order to tax them accordingly. There are two issues in considering a digital good in the Metaverse as good under the GST laws for the purpose of taxation. It is analyzed in detail below.

Section 2(52) of the CGST Act, 2017 defines *goods* as *"every kind of movable property other than money and securities but includes actionable claim, growing crops, grass and things attached to or forming part of the land which are agreed to be severed before supply or under a contract of supply."*

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<sup>30</sup> CBDT Notification No. S.O. 2959E

<sup>31</sup> CBDT Notification No. S.O. 2958(E)

As per the above definition, a good includes a movable property. We now refer to various legislations to find out what is a movable property.

Section 2(9) of the Registration Act, 1908 states that “*Movable property includes standing timber, crops and grass, fruits on trees and juice in its trunk, roots and leaf, and property of every other description, except immovable property.*”

Whereas Section 3(36) of the General clauses Act states that “*Movable property shall mean the property of every description, except immovable property.*”

Section 22 of the Indian Penal Code 1860 states that the words “*movable property*” are meant to include corporeal property under all descriptions, with exceptions such as land and things attached to the earth or permanently fastened to anything which is attached to the earth.

By legal definitions, any item or things in the Metaverse will be considered as a movable property since every existing definition of the movable property defines it as excluding immovable property as seen above. An *Immovable property* is a property that is attached or fastened to the land and earth, and that which cannot be moved. Since no things in Metaverse are attached to the ground, they fall under the definition of movable property. Hence, there is a possibility of the existence of goods in Metaverse. But we are not quite sure of it as we do not know how the concept of movability of things from one place to another works in the virtual world. It must be taken into account that this concept of movability of property is also important in finding whether a good can be categorized as collectible or otherwise for the purpose of applying taxation on transfer of capital goods. Those goods which are not collectibles in nature are not considered as capital goods for the purpose of taxation under Section 56 of the Income Tax Act, 1961.

Secondly, the definition of goods and services provided in the GST Acts are quite vague and very wide, and they need to be revisited for a greater clarity to consider the virtual aspects of goods. For example, when someone from India buys a Tesla as an NFT in the digital world from a US based entity, the first question that arises is whether it would be considered a movable asset, despite there being no actual movement in the real world.

But we can see no big issue with the services in Metaverse falling under the definition of services in GST, which is self-explanatory. Section 2(102) of the CGST Act, 2017 which defines *services* as “*anything other than goods, money and securities but includes activities relating to the use of money or its conversion by cash or by any other mode, from one form, currency or denomination to another form, currency or denomination, for which a separate consideration is charge.*”

In fact, there is a possibility of considering the online goods and services under the single head of Online Information Database Access and Retrieval (OIDAR) services and treating in the similar manner as digital photos, music, information etc. will be taxed, i.e., as OIDAR services since delivery of the same is also mediated over the internet only. Accordingly, the respective provisions related to OIDAR services might be applicable in the place of applying taxation for physical goods or services. However, it is pertinent to note that in order to be classified as OIDAR services, there is an additional condition of minimal human intervention. In respect of NFTs, it needs to be analyzed that in case where a live event is organized in the Metaverse platform, whether it can be claimed that there is minimal human intervention.

#### **4. Online Education Platform**

Metaverse has the potential to redefine education for once and for all through visualization and interaction. In fact, studies have shown that learning through Metaverse increases grades and improve the learning capabilities of the students.<sup>32</sup>

The term *Education* is not defined in the CGST Act. It can however be defined as the process of training and developing the knowledge, skill and character of students by normal schooling.<sup>33</sup>

Education through Metaverse will be taxed based on the jurisdiction of students availing those services. When any educational service is availed by a student in India through his Avatar, it will be taxable since the place of service rendered is in India. On the other hand, if the same service is availed by a foreign student though it is provided by an Indian institution, the same is not liable to be taxed under GST laws since the place of service rendered is outside the

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<sup>32</sup> Collins, C. (2008). Looking to the future: Higher education in the Metaverse. *Educause Review*, 43(5), 51-63.

<sup>33</sup> *Loka Shikshana Trust v. CIT*, (1975) 101 ITR 234

country. These services will not fall under the OIDAR Category wherever there is assistance of live tutor. Education services which are classified under Heading 9992<sup>34</sup> are taxable at the rate of 18% (9% CGST + 9% SGST).

## 5. Entertainment, Gaming and Online Events

Metaverse can provide for numerous entertaining activities like concerts, theatres, amusement parks etc. and this will lead to the attraction of GST and State-specific Entertainment tax.<sup>35</sup> We can even refer to the recent hosting of a concert by Ariana Grande in the Metaverse, which generated revenue of over \$20 Million.<sup>36</sup> The GST rate on entertainment activities is 18%. The additional tax levied by the states on top of GST is in the range of 20-30% but its application to events conducted in Metaverse is not so clear. Under the GST Regime, we can account for all these activities in two different ways. Firstly, all online supplies of Digital Content may be considered as OIDAR (Online Information Database Access and Retrieval services) and taxed accordingly. Secondly, the GST Act, 2017 specifically takes into account ‘admission to events’ and its ancillary services separate from the above. However, there is no clear way to identify which activities will fall under which head. Section 2(17) of IGST Act, 2017 defines *OIDAR* to mean “*services whose delivery is mediated by information technology over the internet or an electronic network and the nature of which renders their supply essentially automated and involving minimal human intervention and impossible to ensure in the absence of information technology and includes electronic services such as,—*

*(i) advertising on the internet;*

*(ii) providing cloud services;*

*(iii) provision of e-books, movie, music, software and other intangibles through telecommunication networks or internet;*

*(iv) providing data or information, retrievable or otherwise, to any person in electronic form through a computer network;*

*(v) online supplies of digital content (movies, television shows, music and the like);*

*(vi) digital data storage; and*

*(vii) online gaming;”*

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<sup>34</sup> Notification No. 11/2017-Central Tax (Rate)

<sup>35</sup> [Metaverse in the Media and Entertainment Market](#), Emergen Research, March 2022

<sup>36</sup> J. Tien-Dana, [Ariana Grande's Fortnite Concert Opens Up the Metaverse](#), 2022; [‘Ten major artists who have performed in the Metaverse’](#), July 2022

Focus must be on the words *'Impossible to ensure in the absence of Information Technology'*. This causes almost all of the entertaining activities in Metaverse to fall under this provision and will be taxable, wherever the place of service is found to be within the jurisdiction of India.

## **6. Considering NFT as a financial instrument**

Let us now attempt to find whether NFTs can be considered as financial instruments.

Money has been defined under Section 2(75) of CGST Act, 2017 as *"The Indian legal tender or any foreign currency, cheque, promissory note, bill of exchange, letter of credit, draft, pay order, traveller cheque, money order, postal or electronic remittance or any other instrument recognized by RBI, when used as a consideration to settle an obligation or exchange with Indian legal tender of another denomination but shall not include any currency that is held for its numismatic value."*

Security, on the other hand, has been defined to include:

*"1. Shares, scrips, stocks, bonds, debentures stock or other marketable securities of a like nature in or of any incorporated company or other body corporate:*

*a. Derivatives*

*b. Units or any other instruments issued by any collective investment scheme to the investors in such schemes*

*c. Security receipts as defined in clause (zg) of section 2 of the Securitisation and Reconstruction of Financial assets and Enforcements of security interest Act, 2002*

*d. Units or any other such instrument issued to the investors under any mutual fund scheme*

*e. Any other certificate or instrument issued to an investor by any issuer being a special purpose distinct entity which possesses any debt or receivables.*

*2. Government securities*

*3. Rights and interests in securities."*<sup>37</sup>

It can be seen that NFTs are not specifically included in the aforementioned definitions. Accordingly, it may be inferred that NFTs cannot be classified as a financial instrument. Therefore, it cannot be excluded from the ambit of GST unless it falls within the definition VDA provided by the Income Tax Act, 1961.

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<sup>37</sup> Section 2(h) of Securities Contract (Regulation), 1956

Payments made with cryptocurrencies, NFTs, or tokens are a necessary part of many Metaverse activities and so fall under the definition of VDA under the Income Tax Act, 1961. Though it is treated like that of capital goods, it may not be considered as financial instrument. These digital resources act as a financial link between the Metaverse and the actual world. For instance, Sandbox utilizes Sand Crypto while Decentraland uses Polygon Mana. Users must have a digital wallet which they can use to store cryptocurrencies, NFTs, or tokens like Mana and Sand before they can join a Metaverse.

## **UPCOMING SECTORS IN METAVERSE**

### **1. Healthcare and Fitness**

The usage of augmented reality is the best illustration of Metaverse applications in the medical field. The use of Augmented Reality (AR) has become a crucial technology for enhancing medical students' knowledge and skill sets<sup>38</sup>. For instance, Microsoft HoloLens-supported surgical assistance tools assist surgeons during a variety of surgical operations.

Healthcare is another industry that Metaverse may impact deeply. By enhancing collaboration and communication across multiple entities, the use of Metaverse in the healthcare industry helps speed up innovation. For instance, via Metaverse, clinicians can securely exchange patient data and medical records with other medical professionals, researchers, and pharmaceutical companies. This would improve information exchange and maybe speed the development of new cures and treatments. Patient data such as body temperature, blood pressure, heart rate, and respiration rate are shown in real-time using AR headsets, as are pre-operative pictures obtained from 3D scans, CT scans, and MRI scans.<sup>39</sup>

Digital treatments are already gaining popularity in the Metaverse, where VR and AR technology enables applications like cognitive therapy, support groups, psychiatric assessments, rehabilitation, and even physical therapy using haptic sensors<sup>40</sup>. Nurses and physicians are increasingly using augmented reality to enhance the spotting of veins in their

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<sup>38</sup> CW Lee, Application of Metaverse Service to Healthcare Industry: A Strategic Perspective, International Journal of Environmental Research and Public Health, October 2022

<sup>39</sup> Sutherland, J.; Belec, J.; Sheikh, A.; Chepelev, L.; Althobaity, W.; Chow, B.J.; La Russa, D.J. Applying modern virtual and augmented reality technologies to medical images and models. J. Digit. Imaging 2019

<sup>40</sup> [Nik Vassev, How the Metaverse Will Reshape Mental Health Therapy, Entrepreneur, May 2022](#)



patients. Thus, there is a need to bring in new laws or amend existing ones to account for the services rendered by medical professionals in the virtual world.

## **2. Travel and Tourism**

Undoubtedly, the pandemic caused losses and setbacks for the travel industry, but virtual travel's potential could result in the birth of a brand-new tourist market.<sup>41</sup> With the aid of VR headsets, virtual reality tours, and 360-degree videos, the travel and tourism industry has gained ground in the digital world. People will still continue to augment their real-world trips with virtual ones, and a world like this will only make these experiences better.

The Metaverse, which also provides virtual tours of real-world towns and digital representations of real estate, allows one to explore stimulations of famous landmarks and buildings in their original condition.<sup>42</sup> The use of digital avatars also makes touring there as entertaining as it is in the real world.

In a virtual environment, users can talk, move as a group, and share experiences, which can help them, form powerful ties. With the 360° virtual tour, you may virtually visit the selected destination with lifelike effects in addition to watching the location as it was captured. A particularly well-known example is Thomas Cook's introduction of the Virtual Reality Holiday "Try before you Fly," which enables potential visitors to virtually travel to their favorite places. This also presents huge scope for revenue and hence, has to be taxed.

## **3. Finance and Banking**

The banking and finance industry has a history of being an early user of new technologies, and Metaverse is no exception. Metaverse is used by banks and other financial institutions to enhance customer service, save costs, and expedite procedures.<sup>43</sup>

The most typical Metaverse use case in the banking and finance industry is identity verification. Banks and other financial institutions can use Metaverse to quickly and easily certify the

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<sup>41</sup> K. Woznicki, '[A new kind of tourism: Virtual travel in the Metaverse](#)', Verizon.com, May 2022

<sup>42</sup> Fannellie Gerard, '[Why the metaverse \(really\) matters for travel](#)', Accenture, September 2022

<sup>43</sup> Brandon Koeser & Angela Kramer, Welcome to the metaverse: The digital future of banking, A Real Economy publication Financial institutions industry outlook: Fall 2022

identity of their customers. In the fight against financial crimes like money laundering, this is vital.

From any place, the banking Metaverse provides a 360-degree picture of actual banks. You can still use your laptop or mobile device to access Metaverse banking even if you don't own a VR headset. Additionally, the largest benefit of banking in Metaverse comes from Blockchain, NFT marketplace development and other Decentralised Financial cryptocurrency assets<sup>44</sup>. The present GST laws must be extended to account banking and financial transactions taking place in Metaverse.

#### **4. Manufacturing and Training**

Building a virtual factory in the manufacturing sector is something that industries can do with Metaverse. Industries would be able to modify their production flow in real time and see it from beginning to end. Additionally, this would enable businesses to train new staff without requiring them to be there physically on the assembly line.<sup>45</sup>

Companies might also use Metaverse to create an online storefront for their products. Metaverse can be used to create a virtual market place where businesses may exchange goods and services. This would aid businesses in growing their markets and increasing their profits. Manufacturers may also use virtual reality to build flooring. As such, they must be brought into the ambit of taxation laws as done in the real world.

#### **JURISDICTION**

Jurisdiction is a conundrum when it comes to taxing activities in Metaverse.<sup>46</sup> Though no tax authorities of different states have jurisdiction in the virtual space,<sup>47</sup> there are other criteria to which tax liabilities can be imposed upon individuals or entities. One such criterion is identifying the real world tax residency of parties to the transaction, so far as direct tax is concerned. This paves an easier way as to finding jurisdiction of the transaction concerned and application of relevant tax laws.

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<sup>44</sup> [Impact of Metaverse on Financial Services](#), Financial Express, Jun 2022

<sup>45</sup> The metaverse is going to flip the manufacturing industry on its head by 2030, analyst predicts, The Verdict, October 2022

<sup>46</sup> J. Cooper, '[Why we need 'meta jurisdiction' for the metaverse](#)', The Hill, February 2021

<sup>47</sup> N. Bardawil, '[No country has jurisdiction over the metaverse \(yet\)](#)', BSA Ahmad Bin Hezeem & Associates LLP

Speaking of indirect tax, GST extensively deals with the concept of '*place of services or delivery of goods*,' for identifying the jurisdiction of transaction concerned. The virtual world can be both centralized and decentralized. In a centralized space, a single entity regulates the activities taking place in Metaverse and hence it is easier to obtain data of the transaction and levy appropriate taxes. Whereas, in a decentralized space, it is totally impossible to determine when, where and who are all involved in a transaction as no single entity has access to the data. As such, it complicates the taxation process.

In order to tackle the above issue, the authorities need to revisit the related provisions. To determine the jurisdiction of such transactions, the authorities may map the IP address and location of the source and recipient as one potential option.

### **THE CONCEPT OF OWNERSHIP IN METAVERSE**

Finally, another important question that rises is whether the ownership is real in Metaverse. Few experts argue that one does not actually own anything on the Metaverse. With respect to this, we need to consider two circumstances. Firstly, with respect to centralized space, where an entire space is owned and controlled by a single entity providing the service. When such an entity that unilaterally controls all digital assets of that particular Metaverse, decides to close the virtual space that it created, all activities will come to an end and as a result all assets will cease to exist without even being monetized. A company, as may be backed by its terms of service, has a right to even ban a user from its platform and the user's digital assets can be deleted. The user's NFT would then be rendered useless. Secondly, most of the NFTs (pertaining to art and related things) are merely replications of the assets created in the real world and ownership is only given to its copy. For example, if an artist of an image creates and launches an NFT of the picture, the owner of the NFT will own merely a copy of the image. Though each NFT is unique which proves ownership, the ownership is only to its copy.

### **ISSUES IN TAXING METAVERSE**

We have analyzed the Income Tax Act, 1961 and the GST Laws to find their applicability to Metaverse operations. Throughout the paper, it can be understood that there are various hiccups in taxing the Metaverse with the help of present laws. Also, various concepts of Metaverse, like jurisdiction and ownership of assets, are still not clear, especially since it is in its development phase. The following are the key issues when it comes to taxing Metaverse:

1. Metaverse is global, in the sense, it is not confined within any particular geographical location. This means no single state can have a claim over it for the purpose of regulation.
2. It must be understood that essentially a Metaverse is a private place, a place not subject to governmental control. Hence, collecting data for the purpose of finding the transactions to tax becomes more difficult. The Organization for Economic Co-operation and Development (OECD) has come up with a framework for the automatic collection of information on crypto-assets to identify key transactions made by the users and enable taxation.<sup>48</sup> The framework has suggested that the crypto-assets information must be automatically shared with the government at the end of the calendar year with providers having details of the KYCs of customers and customers needing to self-certify their transaction. This model has received appreciation from various experts but it has presented data protection issues.
3. Critics claim that there is actually no owning of any asset in the Metaverse since it is a virtual space and its asset may cease to exist on the closure of the space by the company which created it. For instance, there is no ownership claim when purchasing accessories in a video game like PUBG.
4. Another such issue is with regard to the treatment to be applied to the assets in Metaverse. It is ambiguous as to whether a good in the Metaverse should be given the same treatment of tax as applicable for the same type of good which is present in the real world or should every goods be considered as a service provided online and subjected to the same taxation. This is better explained through an example. A dress or a shoe purchased in Metaverse can either be considered on par with dress or a shoe in the real world and subjected to the taxation of the same rather than both being considered as a service provided online and falling under the same tax category.
5. The amendment brought through Finance Act, 2022, only aims to tax those virtual assets which are of monetary value and leaves out the things that are consumable in nature. Hence, a large part of revenue generated by entities is left untaxed.

These issues need to be cleared to enable a definitive stance of Metaverse with respect to the physical world for the better adoption and development of the technology. This will require a

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<sup>48</sup> Crypto-Asset Reporting Framework and Amendments to the Common Reporting Standard, OECD, October 2022

collective effort from all the countries around the world to provide for a seamless regulation of Metaverse across the world and curtail any confusion.

## **CONCLUSION**

Therefore, it can be concluded that it is imperative for the government to either bring specialized laws or amend the existing ones in such a way that all activities in Metaverse are monitored and taxed. With the world evolving rapidly with technological advancements, the government must also come out of traditional thought and start having surveillance over this new parallel universe. When the virtual space is capable of generating huge amounts of revenue, ignoring the same from taxation would be totally absurd. This was all-too-well understood by our Prime Minister Narendra Modi as he remarked on the importance of technology advancement.<sup>49</sup> This will also in turn ensure that no individuals or entities are allowed to carry out undesirable activities of illegal nature such as accumulation of black assets even in the virtual space. Crimes cannot be tolerated irrespective of the world it be. Hence, it is recommended that the state may appoint a law commission to frame appropriate laws for the virtual world.

Tim Berners-Lee, Inventor of the World Wide Web once said, "*The Web as I envisaged it, we have not seen it yet. The future is still so much bigger than the past.*" As soon as possible, the state needs to start intervening in the virtual world for the benefit of all.

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