

INTENTION TO USE METAVERSE IN THE FUTURE: INTEGRATING SELF DETERMINATION THEORY AND THEORY OF PLANNED BEHAVIOR

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Background and Rationale

The Metaverse is projected to reach a market value of \$800 billion by 2025. Big Tech companies like Google, Meta, Microsoft, and Apple are heavily investing in its potential. Despite the surge of interest, the widespread adoption of the Metaverse has not been fully realized, and users often report dissatisfaction with the currently available experiences on the platforms. Analyzing and studying Metaverse user motivations is a recognized research gap and the aim of this article. While past research has primarily studied initial adoption intentions, this study focuses on actual Metaverse users and their engagement in enjoying Metaverse platforms using immersive VR headsets.

Theoretical Foundation

Two well-established psychological models are combined to explore user motivation: 1. Self-Determination Theory (SDT): This theory explains human motivation by categorizing it into different types, ranging from intrinsic (engaging in activities for their inherent pleasure) to extrinsic (motivated by external rewards). Specifically, the study focuses on: *Intrinsic Motivation* (enjoyment and interest in the Metaverse experience); *Identified Regulation* (participation driven by personal values and importance); *Introjected Regulation* (motivation driven by internal pressures, such as guilt or obligation); *External Regulation* (motivation driven by external incentives or rewards). 2. Theory of Planned Behavior (TPB): TPB is used to predict behaviors based on three primary constructs: *Attitude* (the individual's positive or negative evaluation of using the Metaverse); *Subjective Norm* (the perceived social pressure to use or not use the Metaverse); *Perceived Behavioral Control* (PBC) (the individual's perception of their ability to perform the behavior, in this case, continued engagement with the Metaverse). This study proposes that motivation types from SDT influence future intentions to use the Metaverse through mediating factors (attitude, subjective norm, and perceived behavioral control) drawn from TPB.

Research Model

The research model integrates SDT's motivational factors with TPB's social cognitive factors, hypothesizing that motives derived from SDT, aimed at predicting continuance intention to use the Metaverse, are mediated by behavioral belief-based antecedents from TPB.

Methodology

The study used data from an online survey administered to a sample of 324 Metaverse users. The participants were selected based on their regular usage of the Metaverse through VR headsets. The survey measured various constructs using well-established scales adapted to this context, such as the Perceived Locus of Causality (PLOC) scale for motivation and scales for TPB constructs.

Results

The structural equation modeling (SEM) approach was used to analyze the data, confirming the strong fit of the model. Key findings include:

- *Attitude* and *PBC* significantly influence the *intention* to continue using the Metaverse, while *subjective norms* do not.
- *Intrinsic motivation* strongly predicts *attitudes*, *subjective norms*, and *PBC*.
- *Identified regulation* predicts *attitude* and *PBC* but does not significantly impact *subjective norms*.
- *Introjected regulation* and *external regulation* show limited effects on *attitudes* and *PBC*.
- The *intention* to use the Metaverse is primarily driven by *attitude* and *PBC*, with *intrinsic motivation* indirectly affecting these through mediation.

The model indicates that intrinsic motivation affects users' future intentions indirectly, as enjoyment and personal engagement with the Metaverse bolster positive attitudes and a sense of control, which in turn drive continuance intention. However, the direct effect of motivational factors on future use is limited, showing the sufficiency of TPB constructs in predicting user behavior.

Implications

This study is among the first to empirically test a theoretical integration of SDT and TPB in the context of the Metaverse. It extends the technology adoption literature by focusing not just on initial adoption but on ongoing engagement, particularly among VR headset users. The findings suggest that the immersive and enjoyable experiences provided by the Metaverse are crucial to its success, rather than external incentives. Metaverse service providers can enhance user retention by focusing on creating engaging and enjoyable experiences that promote intrinsic motivation. This suggests that the Metaverse, as it stands, is viewed primarily as a leisure or entertainment platform rather than a business or educational tool. Therefore, platforms that provide meaningful personal or social experiences will likely see greater user loyalty.

Conclusion

This study contributes to understanding the continued use of the Metaverse by applying a combined model of SDT and TPB. The key finding is that intrinsic motivation influences users' future intentions indirectly through positive attitudes and perceived control, highlighting the importance of enjoyable, immersive experiences for user retention. The study also provides evidence that social pressure (subjective norms) has little influence on the behavior of current Metaverse users, contradicting some earlier technology adoption studies.