DS223: Marketing Analytics
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# INNOVATION DIFFUSION ANALYSIS
## Bass Model Application to Tecno Pocket Go AR Gaming Device

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## INTRODUCTION

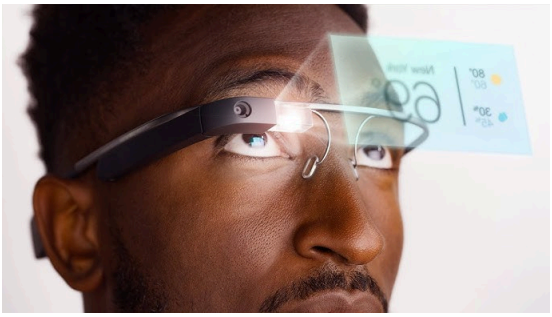
This report analyzes the diffusion potential of the Tecno Pocket Go, an innovative AR (Augmented Reality) gaming device selected from TIME Magazine's Best Inventions of 2024 list, using the Bass Diffusion Model and historical AR market data.

## PRODUCT COMPARISON AND CONTEXT

The Tecno Pocket Go gaming system, which integrates augmented reality (AR) glasses with a portable controller, shares similarities with Microsoft's HoloLens and Google Glass, but with a focus on gaming. Both Google Glass and HoloLens were pioneering products in the augmented reality space, introducing wearable devices that overlay digital information onto the real world. However, these products primarily targeted enterprise and productivity applications, such as healthcare and education, with high prices and niche use cases that limited their consumer adoption. Google Glass, for example, was introduced with the goal of creating a hands-free experience, allowing users to access notifications and take photos, but struggled due to privacy concerns and social stigmas. HoloLens, while offering a more immersive mixed-reality experience, also faced challenges in terms of cost and adoption beyond business applications.

In contrast, the Tecno Pocket Go adapts these AR principles into a gaming-specific context, merging a portable AR display with a controller that doubles as a Windows 11 computer. This combination offers an immersive, yet compact, gaming experience that makes AR more accessible to the consumer market, particularly for gamers on the go or those with limited space at home. The integration of a game controller with AR glasses is unique, whereas Google Glass and HoloLens focus more on professional and practical applications. Tecno's approach is likely to resonate with a broader audience because it aligns more closely with entertainment and gaming, which have historically had higher consumer adoption rates than AR products aimed at business users. Thus, while Google Glass and HoloLens set the groundwork for AR, the Tecno Pocket Go capitalizes on their technology by creating a consumer-friendly innovation with a strong focus on the gaming industry.

**Tecno Pocket Go**



**Google Glass**

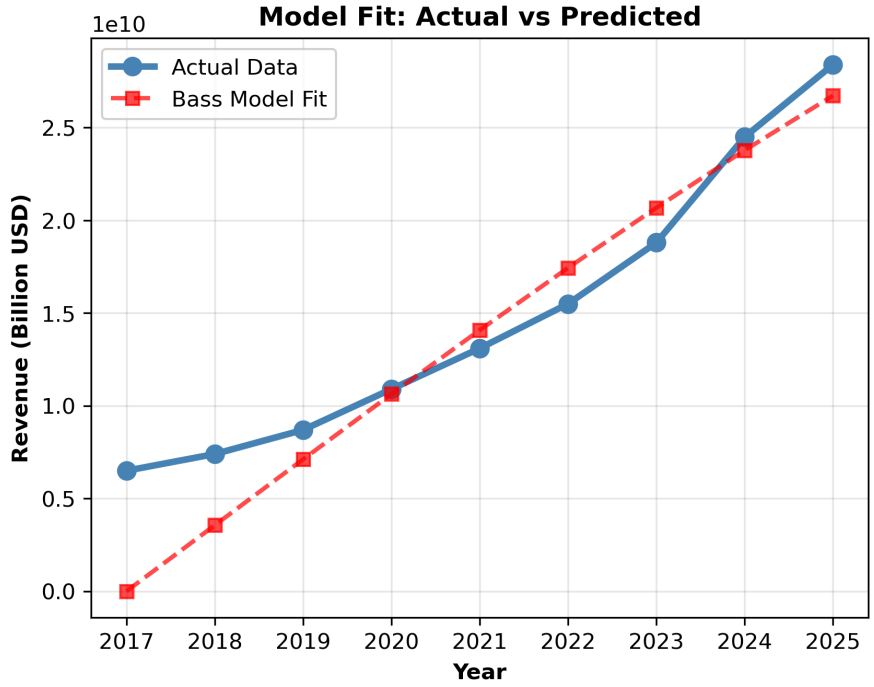
**Microsoft's Hololens**

## SCOPE OF ANALYSIS: WORLDWIDE APPROACH

I have decided to do the analysis on worldwide level, for the Tecno Pocket Go because AR technology shows similar growth patterns across all major markets, the global AR market is expected to grow from $83.65 billion in 2024 to $599.59 billion by 2030 with steady growth rates in different regions, and because AR gaming devices like the Tecno Pocket Go are launched in multiple countries at the same time, rely on global supply networks, and benefit from users influencing each other across borders, making worldwide analysis more useful than studying just one country, while global data from Statista provides better quality information with longer historical records than individual country data.

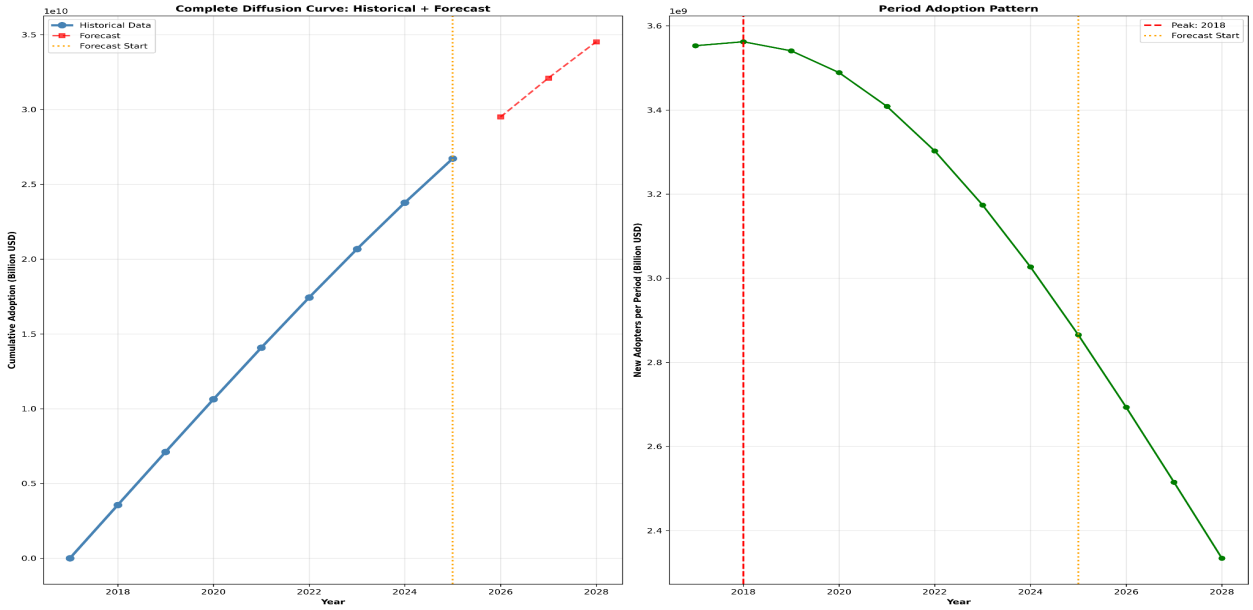
**BASS MODEL ANALYSIS**

The Bass model works well at predicting AR market growth from 2017-2025, with the predicted line following the actual data closely most of the time. This shows the model correctly understands how people adopt new technology, first through early adopters trying new things (innovators), then through word-of-mouth spreading to more people (imitators). However, the model predicts slightly lower numbers than what actually happened, especially in the early years (2017-2019) and recent years (2024-2025), suggesting the AR market grew faster than expected or is reaching its maximum size sooner than the model thought. This gives us helpful insights for predicting how the Tecno Pocket Go might perform, it could also see strong growth that exceeds typical expectations.



## DIFFUSION PATTERN FINDINGS

Analyzing the plots of Complete diffusion curve and Period Adoption Patterns, we can see how the AR market has grown and will continue to grow. The left chart shows the total market size growing in an S-shaped curve from almost zero in 2017 to about 35 billion USD by 2029, with the orange dotted line marking where actual data ends (2025) and predictions begin. The right chart shows the bell-shaped curve of new users joining each year, revealing that the highest number of new adopters happened in 2018 at about 3.6 billion USD, which is surprisingly early and shows strong initial excitement about AR technology. After 2018, the number of new users each year starts dropping, meaning the market is moving from fast growth to a slower, more stable phase as it reaches more of the potential customers. However, the total market keeps growing toward the expected limit of 35 billion USD, suggesting the Tecno Pocket Go might follow a similar pattern with strong early interest followed by steady but slower growth as it reaches more customers.




## CONCLUSION

The Bass Model analysis of historical AR market data provides valuable insights into the potential diffusion direction of the Tecno Pocket Go. The model demonstrates that AR technologies experience strong early adoption followed by sustained growth, with the market showing faster than expected expansion in recent years. This suggests the Tecno Pocket Go, positioned as a consumer-focused gaming device, is likely to benefit from established AR market momentum while potentially exceeding typical adoption expectations due to its accessibility and gaming focus. The worldwide analysis approach captures the global nature of AR gaming device launches and provides robust forecasting based on comprehensive market data.

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