

How Virtual Reality can be used as a financial instrument when making investments

Virtual Reality-technology has since the 1930s fooled the human brain and is to some people described as the biggest technical development since the moving image. Virtual Reality (VR) enables physical presence in artificial environment. The technology allows visualization and interaction with environments, which in real life would be too costly to recreate. At the same time, the banking sector's ways of presenting financial information are relatively old fashioned and still consist of lists and 2D graphs. This study has examined whether VR can be used by financial actors as an instruments and what the technology can contribute to in economics. The present work has laid the foundation for a VR test environment that has been tested and evaluated by potential users.

New technology always seeks its identity but right now gaming and entertainment has been the most mentioned area of use and has proven that the technique works technically and economically. It is too early to define exactly what we can do with the technique although it's clear that the technique is growing in areas of education, therapy and communication. What is sure is that virtual reality will face some opposition before it's fully accepted.

The numbers and distributions that the bank provides us with have been presented in 2D graphs and excel tables for a long time. Everyone with a bank account has interacted with all kinds of platforms and numbers in the name of finance. Studies show that these statistics are often hard to interpret and difficult to relate to reality when it comes to risk and opportunity; especially when you're unfamiliar with economics. This data presentation is missing out what virtual reality and 3D can offer; presence, the feeling of being there, and a relation to reality.

The testing on the environment was conducted in two different groups, one with people with financial experience and one with people without economics knowledge. The test embraced a scenario-based model with physical and analytical tasks ending with a feedback survey. The tests and the feedback made it very clear that Virtual reality can make today's banking and investing easier and more entertaining. This may be at the expense of the money handling and transactions which is clearly not taken seriously.

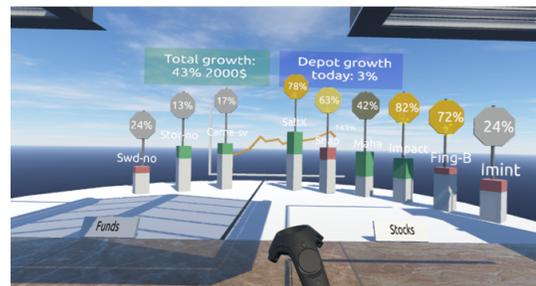


Figure 1 Part of the VR-environment

So how can financial actors apply the technique to show their data? Just releasing a product with the VR-technique has a great news value, both for economical experience how according to interviews seems to be more than happy with the existing systems and the ones without experience in the area. The study shows that current systems may not be superseded but accompanied. If the environment should use stables or circles diagrams on data visualization cannot be sure but the conclusions about how VR made the information more fun to interpret will increase the understanding and learning of the private investors. If this is done correctly VR will attract newcomers in investing.

People will be able to see risks in their investments and portfolios if fundamental knowledge is presented to those who are completely unaware of the basics of finance. Most of the evidence suggests that VR has an absorbing effect which makes the user more interested compared to interaction with 2D-data. This, provided that the right data is visualized and that the phenomenon immersion and cyber sickness is taken into account when designing the VR-environment.