

Magdalena Rzemieniak

Faculty of Management
Lublin University of Technology

The Impact of Post-Reality on Creative Businesses

ABSTRACT

Post-reality is a result of technological changes in the marketing environment. This phenomenon has a great impact on creative enterprises. The objective of the study is to characterise the impact of the newest trends in the marketing environment on creative businesses. The article presents the results of the research on the influence of post-reality on the operating strategies of creative businesses. The study was supplemented with examples in the form of case studies. The study uses secondary sources obtained with the desk research method and proprietary participating observations.

Keywords: post-reality, creative business

JEL Classification Codes: M0, M3, M2

Introduction

Post-reality is a trend currently observed in the reality surrounding us. The term appears in the context of an increased impact of digital reality on consumer behaviour in the real world. Post-reality is when consumers buy subscriptions to have continuous access to products without having to deal with the distribution, storage or maintenance of real products, etc. Technological solutions enable the co-existence of digital and physical reality. For many users this is completely natural (for instance, numerous filters on Snapchat). The technological options of controlling the acoustic reality are used in the business practice to eliminate unwanted sounds (e.g. a baby's crying on an airplane). In the field of medicine there are real scenarios of controlling people's future by genetic control [TrendBook, p. 34, The Farm 51 Report, 2017, p. 34]. This paper is a review article. The objective of the present study is to characterise, analyse and evaluate the impact of the post-reality trend on creative businesses. The hypothesis put forward in the study is that post-reality has a substantial impact on the creation of market strategies by creative enterprises. The hypothesis was verified through the case studies of creative businesses under the influence of the post-reality trend. The case studies were developed on the basis of the data included in the *TrendBook 2017* report and supplemented with proprietary observations and a critical analysis of the surrounding reality carried out in 2017. The hypothesis was further supported with the analysis and assessment of the current information and the available quantitative data on the post-reality phenomenon and its impact on the market.

1. Introduction

The notion of post-reality originates from the physical, digital and on-off trends. These trends emphasise that contemporary consumers do not make a distinction between the physical and digital world because both of them seem equally real, intertwining with each other. Currently, however, with the development of such technologies as virtual reality (VR), augmented reality (AR) and mixed reality (MR), it is really difficult to distinguish between the two worlds. Separating one of the spheres from the other is practically impossible for the consumer not only at the level of visual but also auditory stimuli.

The physical and virtual world has become inseparable, creating a new form of reality called post-reality [TrendBook, p. 15].

The subject of post-reality is being investigated both in the foreign and Polish literature. There is an increasing number of publications on the impact of post-reality on consumer behaviour, i.a. by such authors as E. Herrmann, M. Manns, H. Du. S. Hosseini, K. Fischer [Herrmann et al., 2017, pp. 75–77], Ch. Liu, Y. Shen, Y. Shao, J. Zhao, X. Wang [Liu et al., 2017, pp. 129–133], K. Kangsoo, D. Maloney, G. Bruder, J.N. Bailenson, G.F. Welch [Kangsoo et al.,

2017, pp. 345–360], W. Robinett [Robinett, 2017, pp. 189–202], and also S. Sato, K. Mizutani, Y. Dobashi, T. Nishita, T. Yamamoto [Sato et al., 2017, pp. 378–385].

The availability of technologies is the main contributor to the phenomenon of post-reality. The first projects in this area date back to the 1980s and 1990s. Many researchers report that over 3/4 of Millennials claim that spending money on sensations and experiences is more important to them (concerts, fascinating experiences, travel, meeting friends, events, etc.) than on buying physical products. The trend is associated with the fast development of communication oriented at consumers' convenience, simplicity and efficiency.

Virtual reality (VR), augmented reality (AR) and mixed reality (MR) provide businesses with countless possibilities when it comes to communicating with the consumer at various levels. Over a half of Polish Internet users (55%) declare their interest in new technologies, and nearly half (49%) of the surveyed claim that the technology will have a positive impact on people. 53% of this group are women, 57% – men, and post-reality is universal both for women and men [TMT Predictions, 2016, p. 27; The Farm 51 Report, 2017, p. 45].

Taking into consideration the Y generation, leading on the global market in the field of shopping, it can be concluded that the necessity of having access to the physical form of a product is not essential for them to make a decision to purchase it. The vast majority of customers make everyday and other shopping online, and the only physical stores they visit are the local shopping malls, which function as one-stop-shops. This results from the key trend for this generation, which is FAST – the goal is to get everything fast and to save time for meetings, experiences and leisure [Raport VR, 2017, p. 56].

2. Research Methodology

The survey was carried out with the CAWI (Computer-Assisted Web Interview) method – responsive electronic questionnaires available through a website and email. Opinions of 1112 Internet users were collected. The survey was implemented from 3 to 9 March 2017. The structure of the sample consisting of Internet users was adjusted with an analytical weight and corresponded to the structure of Polish internauts aged 15 or more broken down by gender, age and size of their place of residence. Only complete questionnaires were used in the analysis. The survey was performed by the Mobile Institute (TrendBook, 2017, p. 6; VR Industry, 2017, p. 9).

3. Research results and overview

Creativity is a very crucial characteristic of human capital. It can be defined as creating useful and valuable products, services, procedures or ideas by entities collaborating with each other. Creativity may also be an important feature of all aspects of decision-making in business.

This is a phenomenon of inspiring new thoughts, reformulating the existing knowledge and analysing assumptions to express new theories and paradigms or creating awareness. “The process involves identifying, selecting, exchanging and linking facts, ideas and skills” [Proctor, 1998, p. 34]. The world-famous psychologist, M. Wertheimer, described creativity as “breaking down or reorganising thoughts on a given subject to obtain a new, deeper insight into its nature” [Wertheimer, 1959, p. 49]. In turn, T. Rickards defined creativity as “an escape from stagnation in thinking” [Rickards, 1998, pp. 2121–123], emphasising the role of creative thinking in decision-making and problem-solving [Proctor, 1998, p. 36].

There is evidence which confirms a direct link between creative thinking and the effectiveness and productivity of an organisation [Raport, 2010, p. 45]. A creative approach also makes it possible to solve organisational problems, encourages employees to introduce novel solutions, motivates them and helps them develop their skills, and also enhances team work [Lach, 2014, p. 23].

Creativity is also crucial in marketing and in designing a global operating strategy of a business [Szopiński, 2013, p. 98]. With the constant flow of ideas for new products and services and the concept of streamlining processes in an organisation, its competitive edge increases as well [Młyńska, 2015, pp. 117–129].

Contemporary enterprises are increasingly often focusing on activities with a source in human creativity, which not only gives rise to original ideas, novel solutions and variety, but also becomes a crucial economic development factor. Creativity becomes a distinguishing factor between creative businesses and regular companies. This division creates a unique sphere of activity, making creativity a privilege only for a few chosen fields of activity which cannot be found anywhere else [Bilton, 2007, p. 3]. The notion of the creative sector has become popular in Poland, but in the world literature it has been examined in more detail and its significance is more appreciated. In the literature on the subject and the available studies it is possible to find various definitions and classifications of the creative sector. One of the classifications is the one developed by the Department for Culture, Media and Sport (DCMS), according to which the creative sector includes advertising, architecture, arts and antiques, computer games, handicraft, design, film and video, fashion design, music, performing arts, publishing, software, and radio and television [DCMS, 2009, p. 4].

Other analyses follow the division proposed by Kern European Affairs (KEA), which distinguished three areas of the creative sector: traditional domains of art, cultural activity and creative activity. For each of the areas, the sectors directly related to the creation, production, distribution and popularisation of creative goods and services were assigned [KEA 2006, p. 3]. Yet other studies perceive the creative sector through the prism of generated and distributed intellectual property rights. However, the most general definition of the creative sector was suggested by the United Nations Conference on Trade and Development (UNCTAD), a supporting organ of the UN. This is quite a universal definition [UNCTAD, 2008, p. 13], according to which the creative sector comprises cycles of creation, production and distribution of goods and services using creativity and intellectual capital as the main input.

The specific characteristics of creative enterprises (apart from financial resources necessary for them to function, i.e. tangible assets) requires unique resources of an intangible nature, such as knowledge and skills, which are a reflection of human capital and may be a potential source of competitive advantage for creative businesses [Drozdowski et al., 2010, p. 23].

In an attempt to locate creative enterprises among business activities in general (as entities subject to competition and the necessity to adjust to market changes, etc.), they are defined as entities which use artistic and creative skills of their employees or other contractors to gain profit [Trias et al., 2013, p. 78]. Assuming such a definition of creative enterprises, it is recommended to analyse factors contributing to the effective allocation of resources by such entities.

4. Discussion

Post-reality is primarily composed of virtual reality (VR), augmented reality (AR) and mixed reality (MR). Technology gives consumers an opportunity to react naturally and apply practical solutions. Augmented reality is based not only on visual stimuli but also governs our hearing. Despite the fact that in these technologies the technological macro-environment is still in the initial phase of development, the technology leaders (Google, Samsung, HTC, Oculus and Microsoft) sell their innovative products within 24–48 hours from their release. The development of post-reality will probably be stimulated by the widely available augmented reality (for instance, through smartphones). According to expert assessments, in 2020 the AR technology is to increase its market share by three times more as compared to virtual reality (AR – 90 million dollars, VR – 30 million dollars) [VR Industry, 2017, p. 78].

In order for post-reality to grow, the communications technology (5G) will also need to develop. According to researchers, the 5th generation mobile Internet will replace the current standard to reach its full performance in 2035, creating 22 million jobs and contributing 12 billion dollars to the global market. 5G connectivity provides the data transfer speed of 1 Gbps necessary to quickly send large amounts of data [VR Industry, 2017, p. 103].

Post-reality technologies have a high potential in many industries, yet, according to market projections, their position is the strongest in the video games sector. Using post-reality for leisure will bring very high gains for producers (in 2025 as much as 7.3 billion dollars) – see case study 1.

Example

Using the Edison computer modelling tool by Intel, Anouk Wipprecht designed the Spider Dress, which first appeared on technological fairs and catwalks in 2015. The dress senses when the person wearing it is in danger and begins to move its mechanical legs, protecting its wearer's personal space [John et al., 2017, p. 109].

The potential of using VR, AR and MR in new forms of education seems very promising for the education sector. In a virtual lecture hall it is not only easy to be present through virtual

participation. The hall is also free of traditional limitations, enabling the teacher to introduce unrestricted innovations in lectures or classes [Park, 2017, p. 69]. Using post-reality in schools eliminates the necessity to have specialised equipment and enables travel without any spatial limits, etc.

However, the pioneer of introducing post-reality in the business practice is the retail trade sector (see case study 2).

Case study 1

As early as in May 2016 eBay, one of the largest online shopping platforms, joined its forces with Myer, an Australian department store chain, to create the first shopping mall in virtual reality. The Australian department store chain Myer in collaboration with eBay created another alternative to Google Cardboard – Myer Shopticles. Thanks to integrating smartphones into a cardboard VR set, Myer invites its customers to do shopping at their own shopping mall. The advantages of shopping in virtual reality are convenience, the possibility of getting to know all the details about the product before purchase and the customisation of customer experience based on individual purchase history [Witmer et al., 2016, p. 191].

A Chinese player on the online shopping market, the extensive Alibaba platform, has already ordered the preparation of a payment system which does not require the customer of the virtual store to remove their glasses – the payment is confirmed by nodding or looking at a specific point for more than 1.5 seconds (Jung, Hong, Cho, Choi, Noh, 2017, p. 345). There is a high chance that VR and MR will be widely used in retail sales, which is a response to the need to interact with the product before purchase without the necessity of its being physically present, and may have a very strong impact on shopping decisions [TrendBook, 2017, p. 25].

Post-reality technologies are applied in tourism, real estate, architecture and interior design. The new possibilities of visualising post-reality data are also open for the financial sector (for instance, introducing HoloLens goggles by Microsoft and Citibank for everyday assistance with financial market software and data through a new form of presenting and interacting with information).

Case study 2

360 photos and videos supported by 3D models placed in a space assist imagination. In its catalogues IKEA created a simple AR system which enables potential customers to see, e.g., a selected model of sofa in their own salon, using only their smartphones [Cieplak et al., 2016, p. 278]. Architects can present models of their buildings in a 1:1 scale or even locate them in the place where the physical structure is going to be built to enable investors a better understanding of the concept. Using AR overlays and 360 photos, interior designers may visualise their suggestions and place their customers in the very centre of newly created spaces, thanks to which often unclear plans become intuitively understandable [Kłosowski, 2016, pp. 29–37].

Introducing VR to the medical sector brings not only new options of diagnosing patients but also is already used for rehabilitation purposes. In pilot healthcare centres, hospitalised

children are placed in virtual versions of their homes through virtual reality kits; this is to make their stay more natural. The presence of post-reality in the medical industry means new possibilities, such as performing complex surgeries or using VR in psychotherapy.

Virtual presence and the possibility of receiving data can also be used in the work of remote experts. Post-reality may generate considerable savings and increase the safety and productivity of work, which now is possible from almost any place in the world.

Summary

Virtual reality (VR), which enables the user to participate in a computer-generated world in the sphere of vision and sound, makes it possible for their experience to be completely detached from their physical environment. In turn, AR introduces virtual elements, graphics or 3D models to the real world seen, for instance, through a telephone camera. MR, which combines the characteristics of AR and VR, is a form of interaction between the digital and physical space. MR enables natural reactions and practical applications. The quickly developing Audio Augmented Reality (AAR), which is now gaining in significance, is another technology strengthening the presence of post-reality in the operations of creative businesses. Therefore, it can be stated that the objective of the study was achieved.

However, it should be pointed out that the precise recognition of the new trends may bring extreme profits to enterprises, as well as a competitive edge over other market players resulting from a better adjustment of their range to customer expectations. The awareness of macro-environment factors, knowledge about consumers, their needs, market decision mechanisms and patterns of behaviour continues to be the basis for business operations in a dynamic market economy. These are consumers who decide about the success or failure of an enterprise. From the perspective of a business, consumers are the main source of uncertainty, which is why their behaviour (not only resulting from technological changes in the market macro-environment) requires ongoing research.

To recapitulate, post-reality is visible not only in the context of technological changes but in almost every area of life. From the perspective of enterprises, products offered by them and brands created by them, post-reality has become a fact and has created a significant challenge.

References

1. Bilton, Ch., 2007. *Management and Creativity: From Creative Industries to Creative Management*. USA: Wiley – Blackwell Publishing.
2. Cieplak, T., Malec, M., Jarmuř, Ł., 2016. Video materials as a means of promotion and advertising of the fields of study. *Advances in Science and Technology Research Journal*, vol. 10, no 31, pp. 274–280.

3. DCMS, 2009. *Investing in Creative Industries – a Guide for Local Authorities*. London.
4. Drozdowski, R., Zakrzewska, A., Puchalska, K., Morchat, M., Mroczkowska, D., 2010. *Wspieranie postaw proinnowacyjnych przez wzmacnianie kreatywności jednostki*. Warszawa: Polska Agencja Rozwoju Przedsiębiorczości.
5. Herrmann, E., Manns, M., Du H., Hosseini, S., Fischer, K., 2017. *Accelerating statistical human motion synthesis using space partitioning data structures*. SPECIAL ISSUE PAPERS Computer Animation and Virtual Worlds, Version of Record available online: 12 May 2017 | DOI: 10.1002/cav.1780, 2017.
6. John, N.W., Phillips, N.I., Cenydd, L., Pop, S.R., 2017. *The Use of Stereoscopy in a Neurosurgery Training Virtual Environment*. Presence-Teleoperators and Virtual Environments. Available online March 15, 2017, doi: 10.1162/PRES_a_00270, 2017.
7. Jung, S., Hong, S., Cho, K., Eom, H., Choi, B., Noh, J., 2017. *Age-related gait motion transformation based on biomechanical observations*. SPECIAL ISSUE PAPERS Computer Animation and Virtual Worlds, Version of Record available online: 12 May 2017 | doi: 10.1002/cav.1774.
8. Kangsoo, K., Maloney, D., Bruder, G., Bailenson, J.M., Welch, G.F., 2017. *The effects of virtual human's spatial and behavioral coherence with physical objects on social presence in AR*. SPECIAL ISSUE PAPERS Computer Animation and Virtual Worlds, Version of Record available online: 21 May 2017 | doi: 10.1002/cav.1771.
9. KEA European Affairs, 2006. *The Impact of Culture on Creativity*. Brussels.
10. Kłosowski, G., 2016. Use simulation to improve flow control in furniture manufacturing company. *Zarządzanie Przedsiębiorstwem*, vol. 2, pp. 29–37.
11. Lach, M., 2014. *Przemysły kreatywne w Polsce. Analiza liczebności*. Warszawa.
12. Liu, Ch., Shen, Y., Shao, Y., Zhao, Z., Wang, Z., 2017. *Sky detection- and texture smoothing-based high-visibility haze removal from images and videos*. SPECIAL ISSUE PAPERS Computer Animation and Virtual Worlds, Version of Record available online: 3 May 2017 | doi: 10.1002/cav.1776.
13. Młyńska, P., 2015. Determinanty efektywności alokacji zasobów przez przedsiębiorstwa kreatywne. *Studia i Prace Wydziału Nauk Ekonomicznych i Zarządzania US*, no. 39, vol. 3, Szczecin: Wydawnictwo Uniwersytetu Szczecińskiego.
14. Park, P., 2017. Emotional reactions to the 3D virtual body and future willingness: the effects of self-esteem and social physique anxiety. *Virtual Reality*, vol. 1.
15. Proctor, T., 1998. *Zarządzanie twórcze*. Warszawa: Wydawnictwo Gebethner & Ska.
16. Raport, 2010. *Europejski Rok Kreatywności i Innowacji w Polsce*. Warszawa: Fundacja Rozwoju Systemu Edukacji.
17. Raport VR, 2017. *VR-OVA rewolucja marketingu*. ISA.
18. Rickards, T., 1998. *Creativity and Innovation: A Transatlantic Perspective*. *Creativity and Innovation Yearbook*, vol. 1. Manchester Business School.
19. Robinett, W., 2017. *Technological Augmentation of Memory, Perception, and Imagination—From the Viewpoints of 1991 and 2017*, Presence-Teleoperators and Virtual Environments. Available online March 15, 2017, doi: 10.1162/PRES_a_00271.

20. Sato, S., Mizutani, K., Dobashi, Y., Nishita, T., Yamamoto, T., 2017. *Age-related gait motion transformation based on biomechanical observations*. SPECIAL ISSUE PAPERS Computer Animation and Virtual Worlds, Version of Record available online: 3 May 2017 | doi: 10.1002/cav.1766.
21. Szopiński, T., 2013. Kreatywność i jej znaczenie w biznesie. In: *Metody i techniki pobudzania kreatywności w organizacji i zarządzaniu*. A. Kosieradzka, Ed.. Kraków – Warszawa: Wydawnictwo edu-Libri.
22. Trias de Bes, F., Kotler, Ph., 2013. *Innowacyjność przepis na sukces. Model "Od A do F"*. Poznań: Dom Wydawniczy REBIS.
23. Wertheimer, M., 1959. *Productive Thinking*. New York: Harper&Row.
24. Witmer, B.G., Singer, M.J., 2017. *Measuring Presence in Virtual Environments: A Presence Questionnaire*. Presence-Teleoperators and Virtual Environments, Available online March 13, 2016, doi: 10.1162/105474698565686.
25. *The Farm 51 Report*, 2017. Group SA.
26. TMT Predictions, 2017. *Prognozy dla sektora technologii, mediów i telekomunikacji*. TMT. January.
27. TrendBook, 2017. *Trendbook. Hatańska Natalia*.
28. UNCTAD, 2008. *Creative Economy Report 2008*. United Nations.
29. VR Industry, 2017. *Trends A comprehensive overview on the state of the VR Industry in Q2-2017*. VR Industry.

