Centralized Payment Network Advertisements on Digital Branding

Subjects: Others

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Crises are always challenging for banking systems. In the case of COVID-19, centralized payment networks and FinTech companies' websites have been affected by user behavior globally. As a result, there is ample opportunity for marketing managers and professionals to focus on big data from FinTech websites. This can contribute to a better understanding of the variables impacting their brand name and how to manage risk during crisis periods.

crowdsourcing web analytics fuzzy cognitive mapping crisis management

1. Passive Crowdsourcing Participatory Culture and Mind Sharing

Crowdsourcing and crowdfunding practices could play a crucial role in CPNs and FinTech advertisements by reaching all players, such as investors and technicians [1][2]. Howe and Robinson invented the term crowdsourcing to describe an internet corporate model that relies on the collaborative force of many globally connected users that participate in a project through an open call [3]. As a logical consequence, crowdsourcing, better described as "knowledge of the crowds" [4][5], incorporates two main web users: the requesters and the employee participants [6]. Participation and mind sharing are both key elements of crowdsourcing tasks. Mind sharing refers to the use of crowd knowledge, and emphasis is given to the diversity of opinions [7][8]. A significant advantage of focusing on crowdsourced knowledge is the strategic optimization of decision-making processes, for example in efficacy and objectiveness [7][8][9][10]. It is vital to establish participation or a "participatory culture" to accomplish mind sharing.

The participatory culture encourages users to behave as entrepreneurs and main contributors and not simply as customers [11]. Crowdsourcing and crowdfunding can be fruitful and beneficial for the community with the application of the mentality of participatory culture [12]. Since the purpose of crowdsourcing is to collect ideas and provide solutions [13], participatory culture is necessary since the user takes on a role in the crowd and adds value to it [14]. The two critical elements are implicit participation and explicit participation [15]. Explicit participation is perceived as an actual act that is created by motivation [15]. For example, a participant uploads a response to a question. Implicit participation, on the other hand, does not necessarily involve intentional action [15][16][17].

According to previous studies, there are a lot of types of crowdsourcing, including direct crowdsourcing, collaborative crowdsourcing, passive crowdsourcing, and crowdfunding (which is considered a type of crowdsourcing since the platform delivers financial benefit by facilitating transactions among companies and

members of the crowd) [13][18]. The crowd's everyday internet activity produces a massive amount of user-generated data. The gathering of publicly available data without a specific request is referred to as passive crowdsourcing [19][20]. Governments are inquiring about behavioral data from internet platforms to gain a deeper knowledge of public opinion [21] and passive crowdsourcing in various fields such as European research projects [21] and environmental sciences [21]. Passive crowdsourcing encounters difficulties in terms of quality and ambiguity of the outcomes. A significant barrier, for instance, is how to filter worthless and malicious content [22]. This research is based on passive crowdsourcing and implicit participation.

2. Crisis and Risk Management

Many previous studies present different strategies in order to expand the company's reputation and minimize risk in the supply chain and FinTech [23][24]. This study is focused on the correlation between crisis and risk management in centralized payment networks and FinTech. Risk management, in a general context, refers to a company's organized activities that are aimed at risk control [25]. Risk management is crucial in crisis periods, especially in a pandemic period [26]. Specific guidelines must be followed in order for a risk management strategy to be successful. The PACED set of guidelines is mainly used by organizations since they promote the successful implementation of the risk management strategy [27]. Except for PACED, other guidelines are commonly used and the main points in all are the same; the core elements include identification, assessment, treatment, monitoring, and reporting [28].

Supply chains serve as a connecting platform for goods and services to move from suppliers to distribution companies to end customers [29]. Consequently, in a broader sense, CPN and FinTech companies, such as PayPal, fit that purpose. A small disturbance in the supply chain could lead to financial disaster for the companies involved [30]. In a highly volatile and challenging environment, low-risk supply chains seem to be the main strategy to ensure uninterrupted and profitable business operations [30]. In FinTech and CPN companies, various strategies have been promoted in order to ensure that in challenging periods the supply chain will remain productive and beneficial [24][31]. The analysis of big data and the implementation of artificial intelligence in risk management strategies can play a significant role in the vitality of a company [24].

3. Innovative Crisis Effects Analysis

One of the most significant parts of corporate survival has been the development of crisis management. Following major crises have been identified amongst the most fruitful periods for an upsurge in innovation. A decrease in the quantity of innovation performed by tech startups does not always reflect a decrease in economic growth [32]. The lengthy consequences of such disturbance are determined not just by its volume influence, but also by the value improvement that it could cause. But real financial effects of the disturbance are partly determined by the capacity of innovation to migrate throughout various companies. Overall, a crisis phase could be used to shift innovation processes to more efficient organizational structures and meaningful initiatives [33].

In the aftermath of a crisis, there is a huge and continuous reduction in emerging enterprises, and great technical breakthroughs are made by both stalwarts and startups. These included the beginnings of FinTech, cloud storage/computing, knowledge sharing, along with substantial developments in artificial intelligence, which fueled a surge in innovative initiatives [34]. In this path, the adoption and analysis of crowdsourced-obtained data regarding customers' onsite behavior can be an innovative leap forward. During a crisis period, organizations, especially those counting on customers' service usage frequency, need access to customers' behavioral data. These data refer to web analytic metrics, acquired via crowdsourcing platforms, providing valuable intelligence to FinTech organizations. Such information could be harvested in terms of timely assessment of crises' effects on centralized payment network organizations' website customers.

4. Big Data, and Web Analytics of Passive Crowdsourcing and FinTech

According to previous research, competitive advantage can be accomplished by analyzing and utilizing big data [35]. "Big data" is a large amount of unstructured information [36]. Marketeers, to gain knowledge from these massive amounts of information must structure and process those data [36]. A wide range of industries could gain useful insights from the use of big data such as government agencies, FinTech, and crowdfunding [37]. Web analytics is a type of passive crowdsourcing that incorporates the big data generated by web users throughout their normal web research [38][39][40]. This process can be elucidated as the gathering and evaluating user's activity on a company's website, for businesses to acquire a wider knowledge of the interactions that occur between web users and corporate web pages [41][42]. This process can be applied in social media marketing research to produce useful results for web developers and marketers [43]. The use and research of big data support innovation in the CPN and FinTech industry by making the procedures more interactive, platforms better to use, and promotes innovative business models [44][45].

Web analytics are extracted from corporate websites and transformed and processed in quantitative form, widely known as key performance indicators (KPIs) [46][47]. When users access a website in order to make a payment, various KPIs are produced. Those KPIs are divided into two categories: technical KPIs, such as fully loaded time for webpage size, and some behavioral KPIs, which include traffic, bounce rate, and average visits duration. In this research, the authors attempt to study the behavioral KPI's. Search engine marketing (SEM) encompasses every aspect of extracting search engines results encouraging the digital marketing strategy. The abundance of digital marketing campaigns and the poor knowledge of web metrics create challenges for KPIs to meet essential requirements [38][48] and for marketers to integrate web analytics metrics with the optimal outcome for the organization's KPIs [38][49].

As can be distinguished from previous research [38][39][50], the importance of various web analytic metrics to firms' digital marketing and advertising campaigns' efficiency has been proven significant. The referred researches focus mainly on crowdsourcing organizations, air forwarder businesses, airline firms, and cryptocurrency trade organizations. Therefore, a research gap is spotted regarding the digital advertising efficiency of CPN organizations, via crowdsourced web analytic metrics utilization. In order to extract valid insights for CPNs'

advertising performance, the impact of user engagement metrics (bounce rate, average time on site, average pages per visit, etc.) and website traffic type (branded or non-branded) to the main digital advertisement measurement variables of organic traffic and global rank [50].

References

1. Ma, Y.; Liu, D. Introduction to the special issue on Crowdfunding and FinTech. Financial Innov. 2017, 3, 8.
2. Chen, L.; Huang, Z.; Liu, D. Pure and hybrid crowds in crowdfunding markets. Financial Innov. 2016, 2, 253.
3. Howe, J. The rise of crowdsourcing. Wired Mag. 2006, 14, 1–4.
4. Estellés-Arolas, E.; González-Ladrón-De-Guevara, F. Towards an integrated crowdsourcing definition. J. Inf. Sci. 2012, 38, 189–200.
5. Mourelatos, E.; Frarakis, N.; Tzagarakis, M. A study on the evolution of crowdsourcing websites. Eur. J. Soc. Sci. Educ. Res. 2017, 11, 29–40.
6. Bigham, J.P.; Bernstein, M.S.; Adar, E. Human-Computer Interaction and Collective Intelligence; Carnegie Mellon University: Pittsburgh, PA, USA, 2014.
7. Zoref, L. Mindsharing: The Art of Crowdsourcing Everything; Penguin: London, UK, 2015; ISBN 9781101633649.
8. Surowiecki, J. The Wisdom of Crowds; Anchor: London, UK, 2005.
9. Wagner, C.; Vinaimont, T. Evaluating the wisdom of crowds. Proc. Issues Inf. Syst. 2010, 11, 724–732.
10. Babich, V.; Marinesi, S. Does crowdfunding benefit entrepreneurs and venture capital investors? Manuf. Serv. 2021, 23, 508–524.
11. Jenkins, H.; Ito, M.; Boyd, D. Participatory Culture in a Networked Era: A Conversation on Youth, Learning, Commerce, and Politics; John Wiley & Sons: Hoboken, NJ, USA, 2015; ISBN 9780745689432.
12. Lenart-Gansiniec, R. Crowdfunding in Public Sector: A Systematic Literature Review. In Crowdfunding in the Public Sector; Lenart-Gansiniec, R., Chen, J., Eds.; Contributions to Finance and Accounting; Springer International Publishing: Cham, Denmark, 2021; pp. 21–42. ISBN 978-3-030-77840-8.
13. Allon, G.; Babich, V. Crowdsourcing and crowdfunding in the manufacturing and services sectors. Manuf. Serv. Oper. Manag. 2020, 22, 102–112.

14. Kuusela, H. Literature and participatory culture online: Literary crowdsourcing and its discontents. Crit. Arts 2018, 32, 1–17.
15. Villi, M.; Matikainen, J. Participation in social media: Studying explicit and implicit forms of participation in communicative social networks. Media Commun. 2016, 4, 109–117.
16. van Dijck, J. Users like you? Theorizing agency in user-generated content. Media, Cult. Soc. 2009, 31, 41–58.
17. Schäfer, M. How User Participation Transforms Cultural Production; Amsterdam University Press: Amsterdam, The Netherlands, 2011; ISBN 9789089642561.
18. Liu, H.K. Crowdsourcing: Citizens as coproducers of public services. Policy Internet 2021, 13, 315–331.
19. Borgo, R.; Micallef, L.; Bach, B.; McGee, F.; Lee, B. Information visualization evaluation using crowdsourcing. Comput. Graph. Forum 2018, 37, 573–595.
20. Ghermandi, A.; Sinclair, M. Passive crowdsourcing of social media in environmental research: A systematic map. Glob. Environ. Chang. 2019, 55, 36–47.
21. Charalabidis, Y.; Loukis, E.N.; Androutsopoulou, A.; Karkaletsis, V.; Triantafillou, A. Passive crowdsourcing in government using social media. Transform. Gov. People 2014, 8, 283–308.
22. Connors, J.P.; Lei, S.; Kelly, M. Citizen science in the age of neogeography: Utilizing volunteered geographic information for environmental monitoring. Ann. Assoc. Am. Geogr. 2012, 102, 1267–1289.
23. Gaonkar, R.S.; Viswanadham, N. Analytical framework for the management of risk in supply chains. IEEE Trans. Autom. Sci. Eng. 2007, 4, 265–273.
24. Giudici, P. Fintech risk management: A research challenge for artificial intelligence in finance. Front. Artif. Intell. 2018, 1, 1.
25. British Standards Institution Risk Management-Guidelines (BS ISO 31000:2018 2018). Available online: https://www.bsigroup.com/en-GB/iso-31000-risk-management/ (accessed on 16 December 2021).
26. Polinkevych, O.; Khovrak, I.; Trynchuk, V.; Klapkiv, Y.; Volynets, I. Business risk management in times of crises and pandemics. Montenegrin J. Econ. 2021, 17, 99–109.
27. Hopkin, P. Fundamentals of Risk Management: Understanding, Evaluating and Implementing Effective Risk Management; Kogan Page Publishers: London, UK, 2018; ISBN 9780749483081.
28. Ullah, F.; Qayyum, S.; Thaheem, M.J.; Al-Turjman, F.; Sepasgozar, S.M. Risk management in sustainable smart cities governance: A TOE framework. Technol. Forecast. Soc. Chang. 2021, 167, 120743.

29. Hong, J.; Guo, P.; Deng, H.; Quan, Y. The adoption of supply chain service platforms for organizational performance: Evidences from Chinese catering organizations. Int. J. Prod. Econ. 2021, 237, 108147.
30. Sakas, D.P.; Kamperos, I.D.G.; Reklitis, P. Estimating Risk Perception Effects on Courier Companies & rsquo; Online Customer Behavior during a Crisis, Using Crowdsourced Data. Sustainability 2021, 13, 12725.
31. Bussmann, N.; Giudici, P.; Marinelli, D.; Papenbrock, J. Explainable AI in fintech risk management. Front. Artif. Intell. 2020, 3, 26.
32. Babina, T.; Bernstein, A.; Mezzanotti, F. Crisis Innovation. NBER Work. Papers N.27851 2020. Available online: https://doi.org/10.3386/w27851 (accessed on 7 January 2022).
33. Manso, G.; Balsmeier, B.; Fleming, L. Heterogeneous Innovation and the Antifragile Economy. 2019. Available online: https://wwws.law.northwestern.edu/research-faculty/clbe/events/innovation/documents/balsemeier_manso_fleming_2019.pdf (accessed on 27 December 2021).
34. Babina, T.; Fedyk, A.; He, A.X.; Hodson, J. Artificial Intelligence, Firm Growth, and Industry Concentration. SSRN Journal 2020. Available online: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3651052 (accessed on 7 January 2022).
35. Kubina, M.; Varmus, M.; Kubinova, I. Use of big data for competitive advantage of company. Procedia Econ. Finance 2015, 26, 561–565.
36. Drivas, I.C.; Sakas, D.P.; Giannakopoulos, G.A.; Kyriaki-Manessi, D. Big data analytics for search engine optimization. Big Data Cogn. Comput. 2020, 4, 5.
37. Xu, Z.; Liu, Y.; Yen, N.Y.; Mei, L.; Luo, X.; Wei, X.; Hu, C. Crowdsourcing based description of urban emergency events using social media big data. IEEE Trans. Cloud Comput. 2020, 8, 387–397.
38. Sakas, D.; Giannakopoulos, N. Harvesting Crowdsourcing Platforms' Traffic in Favour of Air Forwarders' Brand Name and Sustainability. Sustainability 2021, 13, 8222.
39. Sakas, D.; Reklitis, D. The impact of organic traffic of crowdsourcing platforms on airlines & rsquo; website traffic and user engagement. Sustainability 2021, 13, 8850.
40. Wang, Y.; Xiuping, S.; Zhang, Q. Can fintech improve the efficiency of commercial banks? —An analysis based on big data. Res. Int. Bus. Finance 2021, 55, 101338.
41. Weischedel, B.; Matear, S.; Deans, K.R. The use of emetrics in strategic marketing decisions: A preliminary investigation. Int. J. Internet Mark. Advert. 2005, 2, 109.
42. Gour, A.; Aggarwal, S.; Erdem, M. Reading between the lines: Analyzing online reviews by using a multi-method Web-analytics approach. Int. J. Contemp. Hosp. Manag. 2021, 33, 490–512.

43. Wang, Y.; Deng, Q.; Rod, M.; Ji, S. A thematic exploration of social media analytics in marketing research and an agenda for future inquiry. J. Strat. Mark. 2021, 29, 1–21.
44. Meng, S.; He, X.; Tian, X. Research on Fintech development issues based on embedded cloud computing and big data analysis. Microprocess. Microsyst. 2021, 83, 103977.
45. Lee, I.; Shin, Y.J. Fintech: Ecosystem, business models, investment decisions, and challenges. Bus. Horiz. 2018, 61, 35–46.
46. Saura, J.R.; Palos-Sánchez, P.; Cerdá Suárez, L.M. Understanding the digital marketing environment with KPIs and web analytics. Future Internet 2017, 9, 76.
47. Chaffey, D.; Patron, M. From web analytics to digital marketing optimization: Increasing the commercial value of digital analytics. J. Direct Data Digit. Mark. Pr. 2012, 14, 30–45.
48. Kirsh, I.; Joy, M. Splitting the web analytics atom: From page metrics and kpis to sub-page metrics and KPIs. In Proceedings of the 10th International Conference on Web Intelligence, Mining and Semantics; Association for Computing Machinery: New York, NY, USA, 2020; pp. 33–43.
49. Loftus, W. Demonstrating success: Web analytics and continuous improvement. J. Web Libr. 2012, 6, 45–55.
50. Sakas, D.P.; Giannakopoulos, N.T.; Reklitis, D.P.; Dasaklis, T.K. The effects of cryptocurrency trading websites on airlines & rsquo; advertisement campaigns. J. Theor. Appl. Electron. Commer. Res. 2021, 16, 3099–3119.