



MARKETERS' RELENTLESS PURSUIT OF TECHNOLOGICAL PERFECTION IN THEIR PRODUCTS HAS LED TO IMPROVEMENTS IN CONSUMERS' QUALITY OF LIFE AND CONVENIENCE IN THEIR DAILY LIVES.

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ABSTRACT

During the course of the last few decades, in response to declining finances, increased public scrutiny of police work, and rising public interest in and criticism of police work, police departments have utilised a multitude of technological advancements in order to improve their efficiency and effectiveness. This has been done in order to improve the effectiveness of their operations without sacrificing efficiency. The demands of the growing public interest in and criticism of police work have prompted this action to be taken in order to fulfil those demands. This course of action has been followed in order to satisfy the standards that have been set out by the general public. There is a basic lack of knowledge among the organisations that are responsible for law enforcement across the country about the components that play a part in the process of selecting and using technology among their members. This is a problem since the organisations are accountable for law enforcement. More research has to be done in order to determine whether or not the use of new technology would result in an improvement in the performance of the police force. If this is the case, then the community as well as the police force would benefit from the improvement. It is imperative that this be done in order to find solutions to the problems that have been made available.

Keywords: *Community, Organisations, Public scrutiny, Technology, Police departments*

1. Introduction

Every day, billions of people across the world take advantage of social media, making it one of the most pervasive technologies in use today. For instance, according to Facebook's own estimates, there were 2.38 billion MAUs and 1.56 billion DAAUs as of March 31, 2019. On a global scale, eMarketer predicts that 3.29 billion people actively engaging in social media by 2022. About 42.3 percent of the world's population lives here. The massive number of people who spend hours every



day on many sites makes it no wonder that businesses have started to use social media for marketing purposes. Academics have also been vocal in their support for social media, which has resulted in a mountain of literature on the subject of social media marketing and related concepts like online networks and word of mouth (WOM). Because social media and user behaviour are constantly changing, the future of social media marketing might not just follow the same patterns as in the past, even though researchers and industry professionals have studied and learned a lot about social media marketing over the past 15–20 years. Reason being, both social media and user behaviour are dynamic. To address that question, this post attempt to do just that. It is critical to think about social media's future in relation to marketing and consumer behaviour because it has quickly become an essential tool for advertising and communication for organisations, groups, and companies of all kinds, including those involved in politics. Furthermore, social media holds cultural significance since it has transformed into the principal platform where a multitude of individuals access enormous volumes of information, disseminate personal information and content, and learn about the world at large. Social media is, in a fundamental sense, always evolving. The use of social media has changed significantly even from a year ago, and it's likely that this change again next year (Roslan et al., 2023).

This is because social media is dynamic, evolving constantly in response to changes in its user base and underlying technology. The phrase "social media" might mean different things to different people. Making use of this suite of software-based digital technologies provides users access to online social networks and facilitates real-time communication and the exchange of digital content or information. Applications and webpages are common ways that these technologies are



showcased. The most popular online networking sites and the services offered by them are collectively referred to as "social media" in this context (Philip et al., 2021).

2. Background

Books that discuss and define quality abound; some examples are works by Zeithaml, Nicholls, Dahlgaard et al., Hansen, Ulaga, and Chacour. Their descriptions of the link between value and quality, as well as their definitions of quality in terms of "value for money," all contribute to understanding the relationship between value and quality. On the other hand, they skip over the fourth step of quality evolution—analyzing the link between perceived value and customer value. This is true despite the fact that the purpose of quality management is to provide value to customers and customer value is at the heart of total quality management (TQM) research. While most people attribute value to shareholders, stakeholders, or consumers, Khalifa argues that customer value is the bedrock of all values. Accordingly, ensuring customer satisfaction should be the primary focus of quality management. To support assertion that strategic quality management and operational quality management are totally distinct concepts, might refer to the work of Khalifa and Mele & Colurcio (2006). The majority of total quality management (TQM) studies have concentrated on consumer value, but relatively little has been done to enhance quality management in order to make customer value delivery easier (More, 2023).

Another phenomenon that indicates a "gap" between the value creation goal of quality management and customer value is the fact that the operational objectives and performance measures of Six Sigma and Lean Production do not effectively reflect customer value (see to paper III). The intrinsic difficulty in pinning down value is one probable reason for the problem, according to Mele and Colurcio (2006). Attempts to integrate Total Quality Management, Six



Sigma, and Lean Production into quality management in order to close the "gap" between the "end" of customer value and the "means" of achieving it might encounter obstacles. Customer value, as an "end" state of mind, is subjective and can be hard for producers to understand, which can make producing value for customers a challenge. Furthermore, there are instances when producers and consumers have different ideas about what is valuable to consumers. This "gap" might explain why some people are hesitant to implement "total" quality control (Özkaynar, 2022).

3. The purpose of the research

The purpose of this research is to explore how marketers' relentless pursuit of technological perfection in product development influences consumers' quality of life and daily convenience. The study aims to examine the tangible benefits provided by technological advancements, evaluate consumer satisfaction, and identify potential gaps or unintended consequences that may arise from this pursuit. By doing so, the research seeks to provide insights for marketers on creating more consumer-centered innovations and improving their strategies to better align with consumer needs and expectations.

4. Literature Review

Modern business practices have been built upon the unrelenting quest for technical excellence by marketers. The development and delivery of products and services have been revolutionised by



technological advancements including mobile technologies, the Internet of Things (IoT), and artificial intelligence (AI). One example is how AI-driven personalisation has helped businesses meet the unique demands of their customers, which in turn has increased their happiness and ease of use. A number of scholars have investigated how technological advancements have affected the comfort and ease of consumers. Smart home gadgets and online shopping platforms are only two examples of how technological advancements have simplified and expedited people's day-to-day lives. Additionally, healthcare technology improvements improve quality of life via offering efficient and easily available remedies. Some literature highlights the difficulties of over-engineering items, even if technological perfection might improve user experiences. In particular, less tech-savvy customers may find that too complicated solutions are difficult to use. This shows that technological progress makes things easier, but that new products should be easy to use so that they don't turn off particular customers. The moral consequence of seeking technical perfection is another topic discussed in literature. Environmental sustainability, data privacy, and digital addiction are common concerns. These worries show how important it is for marketers to strike a balance between being innovative and being ethical (Finkielsztein, 2022).

5. Question

- What specific technological innovations have been most impactful in enhancing consumer convenience?

6. Methodology

Research Design: The researchers conducted a cross-sectional study over a four-month period to gather data. The implementation of the cross-sectional design required data collection at a single



point in time, which proved to be both efficient and cost-effective. Numerous organisations were tasked with doing research. The researcher used a quantitative method due to limited resources and a constrained timeframe. All respondents were contacted for the survey using a random sample method. A sample size of 473 was calculated using Rao Soft. Individuals confined to wheelchairs or unable to read or write would have the survey questions articulated by a researcher, who would thereafter transcribe their responses verbatim on the survey form. As participants awaited the completion of their surveys, the researcher would provide information about the study and address any enquiries they may have. Occasionally, individuals are requested to complete and return surveys concurrently.

Sampling: In order to contribute to the research, participants were asked to fill out questionnaires. After determining that the research sample consisted of 473 individuals using the Rao-soft tool, 600 questionnaires were distributed. After receiving 579 responses, researchers culled the sample size to 557 after excluding 22 responses deemed incomplete.

Data and Measurement: A questionnaire survey served as the main data collector for the study. There were two sections to the survey: (A) General demographic information and (B) Online and non-online channel factor replies on a 5-point Likert scale. The majority of the secondary data came from online sites; however it was culled from a variety of sources.

“Statistical tools: Descriptive analysis was applied to understand the basic nature of the data. The validity of the data was tested through ANOVA.”



i) **Conceptual framework**



7. Results

7.1 Factor Analysis:

Principal Components Analysis (PCA) is a technique for finding the subset of variables (components) that adequately describes the data, thereby minimising the number of variables that need to be studied. The following situation can be used to demonstrate their point. Imagine for a second that the researcher is using a 25-item survey to determine how committed participants are. Researchers are aiming to reduce the number of questions in the survey in order to make it shorter. Simplifying the survey can be achieved by using principal component analysis (PCA) to detect and remove redundant items. Consider the case when questions 22 and 25 are quite similar; they pose the same subject in slightly different ways. In this case, delete one of them. The group may reduce the questions or variables to their core using principal component analysis (PCA). The idea of exploratory factor analysis (EFA) or principal component analysis (PCA) might be a bit of a mystery. Since the EFA researcher is more concerned with components than factors, the word "factor" is misleading and inaccurate. Multiple software supports principal component analysis



(PCA), a kind of factor analysis. Principal components analysis, similar to exploratory factor analysis, is a way to narrow down the variables that need to be evaluated. The basic idea behind principal component analysis is to reduce the number of independent variables from many to a manageable number such that those few variables can account for most of the variance in the original set of variables. Principal component analysis (PCA) is commonly used in the following contexts: If a researcher has found that several of their previously measured variables—for example, seven or eight variables, each with its own set of seven or eight questions or statements—measure the same underlying construct—for example, depression—then they may wish to include only those variables—those that they feel most adequately capture the construct in their measurement scale—in their questionnaire. Consequently, it is necessary to determine whether the construct being studied "loads" onto all or part of the variables. For one, it can be used to see if a new measurement scale (like a questionnaire) can be made shorter by removing unnecessary questions or statements; for another, it can be used to see if an existing measurement scale (like a questionnaire) can be made shorter by utilising the fact that response rates are typically higher in shorter questionnaires. The examples shown here are just a small sample of the many applications of principal component analysis. One typical use of component Analysis (FA) is to validate the latent component structure of a set of measured variables. Although they cannot be measured directly, latent factors are believed to be the fundamental sources of scores on observable or indicator variables. Models are the foundation of FA. The modelling of relationships among observables, unobservables, and error is its main emphasis. The Kaiser-Meyer-Olkin (KMO) Test can be used to determine if the data is appropriate for factor analysis. This test determines how well the sample represents the whole and each individual model variable. This statistic is a measure of the possible common variance among data sets. Their data is better suitable for factor analysis



if the proportion is less. KMO returns integers from 0 to 1. One helpful rule of thumb to remember while doing the statistical analysis is that if the KMO values are between 0.8 and 1, then the sample is appropriate.

- “If the KMO values are less than 0.6, this indicates that the sampling was insufficient, and it is imperative that corrective action be made as soon as possible. Some authors have suggested that this value should be treated as 0.5; however, the researcher should use their own judgement for values that fall between 0.5 and 0.6. Some authors have suggested that this value should be taken as 0.5.”

- “KMO When the values are relatively close to zero, this implies that the number of partial correlations is considerable in contrast to the total number of correlations. [Case in point:] To put it another way, correlations are quite widespread, which creates a considerable obstacle for factor analysis because of the nature of the question being asked.”

“For reference, Kaiser put the following values on the results:

- 0.00 to 0.49 unacceptable.
- 0.50 to 0.59 miserable.
- 0.60 to 0.69 mediocre.
- 0.70 to 0.79 middling.
- 0.80 to 0.89 meritorious.
- 0.90 to 1.00 marvelous.”



“Evaluating whether or not the data has the necessary qualities is the first stage in factor analysis. Not all data sets are suitable for factor analysis; in particular, those with weak or nonexistent correlations between the variables. For the purpose of determining whether or not the data are appropriate for factor analysis, the researcher applied the following criteria: Each independent variable’s Bartlett and KMO With the KMO and Bartlett test, they look at everything at once. Strong correlation is shown when the KMO value is greater than 0.5 and the significance level of the Bartlett's test is less than 0.05. As an additional option, KMO measurements can be computed for each variable. The researcher accepts values greater than 0.5.”

KMO and Bartlett's Test

KMO and Bartlett's Test ^a		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.917
Bartlett's Test of Sphericity	Approx. Chi-Square	4950.175
	df	190
	Sig.	.000
a. Based on correlations		

This demonstrates that claims are valid when applied to sampling. The Bartlett Test of spheroid was used to validate a correlation matrix's overall significance. The Kaiser- Meyer Sampling Adequacy Value is 0.917. The p-value for the the Bartlett sphericity test was shown to be 0.00.



Bartlett's test of sphericity showed that a correlation matrix is not an identity matrix with a significant test result.

7.2 Test for Hypothesis

7.2.1 Dependent Variable

Easier living for consumers: Technological progress has profoundly altered the way consumers engage with goods and services in today's lightning-fast society. The relentless pursuit of technical excellence by marketers has resulted in advancements that streamline mundane processes and enhance customer comfort. These technologies have simplified and improved many aspects of daily life, from the automation of mundane tasks by smart home devices to the simplification of shopping and communication by mobile applications. In addition to satisfying the needs of today's consumers, this dogged quest for excellence improves their quality of life through the provision of time savings, effort reductions, and personalised experiences. While these advances do provide many advantages, they also make us wonder about their usability, accessibility, and ethical consequences. In this study, look at the opportunities and threats that come with the ever-changing technological world, and see how marketers' efforts to improve technology have made customers' lives simpler (Dodd & Oniga, 2024).

7.2.2 Independent Variable

Newer machinery for products: The machinery utilised in the manufacture and transportation of consumer goods has been transformed by the lightning-fast growth of technology. Robotics, automation, and artificial intelligence power modern machines that allow firms to scale, be more



efficient, and attain better levels of precision. Products that are both high-quality and customised to suit customers' varied demands are made possible by these developments. Some examples of modern manufacturing technologies are robotic assembly lines, which guarantee uniformity and speed, and 3D printing, which allows for the creation of personalised items with little waste. Internet of Things (IoT) enabled smart machinery may reduce downtime and increase production by real-time process monitoring and optimisation. Better products and services made possible by these innovations improve people's quality of life and make their lives easier (Maurya et al., 2022)

7.2.3 Mediating Variable

Strategy implemented by marketers: Marketers utilise a variety of tactics to take advantage of technical advancements in their products, satisfying customer demands while remaining competitive. Innovation, customer involvement, and value delivery are the focal points of these initiatives. Key tactics include. When developing new products, marketers put a premium on listening to and responding to customer feedback. Products are designed to improve ease and quality of life by utilising data analytics and AI to spot patterns and customise technology to solve specific problems. Personalisation is a key component of modern marketing tactics. Marketers are able to build more loyal customers by using sophisticated algorithms and machine learning to design goods and services that cater to each person's unique habits, tastes, and way of life (Özkaynar, 2022).

- **Relationship between Newer machinery for products and Easier living for consumers Through Strategy implemented by marketers.**



Innovation, value generation, and customer happiness are the three pillars upon which the link between modern machinery, consumer convenience, and marketing techniques rests. Machines outfitted with cutting-edge tech like AI, robots, and the Internet of Things allow factories to crank out superior goods faster and more accurately. Products that meet customer expectations and enhance their everyday lives may be made possible by these technological breakthroughs; they are personalised, dependable, and environmentally friendly. Products made with modern machinery provide consumers tailored answers to their problems while also making their lives easier and more convenient. These advancements simplify life by lowering the bar for effort, saving time, and providing greater performance; examples include smart appliances, wearable electronics, and energy-efficient products. Such items greatly improve people's quality of life due to their increased usefulness and reliability. The success of these technology advancements depends on marketers making sure people know about them and can easily access them. To close the gap between new innovations and their widespread acceptance, marketers are turning to tactics like inclusive pricing, sustainability message, and personalised marketing. Through targeted campaigns, instructional material, and after-sales assistance, they highlight the practical benefits of modern goods, assisting customers in understanding and making the most of these advancements (Finkielsztejn, 2022).

Based on the above discussion, the researcher formulated the following hypothesis, which was to analyse the relationship between newer machinery for products and Easier living for consumers Through Strategy implemented by marketers.



“H₀: There is no significant relationship between newer machinery for products and Easier living for consumers Through Strategy implemented by marketers.”

“H₁: There is a significant relationship between newer machinery for products and Easier living for consumers Through Strategy implemented by marketers.”

Table 2: H₁ ANOVA Test

ANOVA					
Sum					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	96887.430	345	4977.496	625.867	.000
Within Groups	2264.556	211	1.977		
Total	98151.986	556			

The study's outcome is noteworthy. “With a p-value of.000 (less than the.05 alpha level), the value” of F, which is 625.867, approaches significance. This means *“There is a significant relationship between newer machinery for products and Easier living for consumers Through Strategy implemented by marketers.”* is accepted and the null hypothesis is rejected.



8. Discussion

The results of this study highlight how marketers' dogged quest for technical perfection greatly affects the convenience and quality of life of customers. In light of these developments, this talk delves into the most important points, consequences, and obstacles. Innovative goods that streamline processes, reduce effort, and enhance quality of life have emerged as a result of marketers' emphasis on incorporating cutting-edge technology. For example, innovations like smart home gadgets, smartphone applications, and wearable technology have enhanced the efficiency and individualisation of mundane jobs. These developments show how prioritising technological excellence pays off by satisfying customer desires for ease. Although technologically sophisticated items tend to be more convenient for consumers, it is important to make sure these products are still practical and easy to use. Customers who aren't comfortable with technology or who aren't open to new ideas may be put off by systems that are too complicated. This indicates that comprehending and meeting the varied demands of consumers is just as important as innovation when it comes to attaining technical excellence. There are ethical and social responsibility concerns that arise from the dogged chase of perfection. Data privacy, environmental sustainability, and reliance on digital technologies are all areas that have raised concerns. For instance, there are arguments around customer privacy and data security since, although smart gadgets make life easier, they frequently gather large quantities of personal data.



Similarly, sustainable innovation is necessary because of the environmental cost of manufacturing and disposing of technological items.

8. Conclusion

The conclusion underscores that while technological perfection has undeniably improved consumers' quality of life and convenience, it is not without its challenges. Marketers have the burden of navigating the thin line that exists between innovation and accessibility, convenience and complexity, and the progression of technology and ethical responsibility all at the same time. By tackling these problems, marketers to continue to develop goods that have a positive influence on society while simultaneously promoting contentment and trust among consumers over the long term.

References

- Philip, K., Hermawan, K., & Iwan, S. (2021). Marketing 5.0: Technology for humanity.
- Roslan, F. A. B. M., & Ahmad, N. B. (2023). The rise of AI-powered voice assistants: Analyzing their transformative impact on modern customer service paradigms and consumer expectations. *Quarterly Journal of Emerging Technologies and Innovations*, 8(3), 33-64.



More, A. B. (2023). Implementing digital age experience marketing to make customer relations more sustainable. In *New Horizons for Industry 4.0 in modern business* (pp. 99-119). Cham: Springer International Publishing.

Özkaynar, K. (2022). Marketing strategies of banks in the period of Metaverse, Block-chain, and Cryptocurrency in the context of consumer behavior theories. *International Journal of Insurance and Finance*, 2(1), 1-12.

Finkielsztein, M. (2022). Consumer boredom: boredom as a subliminal mood of consumer capitalism. *European journal of American studies*, 17(17-4).

Dodd, C., & Oniga, A. (2024). 3 Consumer Decisions in Marketing Communications. *Marketing Communications: An advertising, promotion and branding perspective*, 51.

Maurya, M., Dixit, S., Zaidi, N., & Dharwal, M. (2022). The phygital dimension: redefining rules of retail success through technological convergence. In *Evolution of Digitized Societies Through Advanced Technologies* (pp. 101-112). Singapore: Springer Nature Singapore.