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STUDY ON THE INFLUENCE OF AI-ENABLED DIGITAL PAYMENT SYSTEMS ON MENTAL ACCOUNTING AMONG GEN Y & Z

Dr.M.A.SHAKILA BANU
Associate Professor
Jamal Institute of Management
Jamal Mohamed College (Autonomous)
(Affiliated to Bharathidasan University)
Trichy

Dr.S.THILAGAVATHY
Associate Professor
Jamal Institute of Management
Jamal Mohamed College (Autonomous)
(Affiliated to Bharathidasan University)
Trichy

Abstract:
In the financial industry, artificial intelligence (AI) is crucial, particularly in digital payment systems that are gradually replacing cash as the primary payment method, particularly among Generation Y &Z. The method or source of payment may affect the mental accounting process that underlies spending. The purpose of this study is to determine how Gen-Y's and Z's mental accounting behaviors are influenced by the features of AI-enabled digital banking systems that they utilize.

Keywords: Mental Accounting, AI, Gen Y, Gen Z, digital banking systems

INTRODUCTION:

The study of creating or programming computers to perform tasks that human minds can perform is known as artificial intelligence It alludes to the idea that machines may be made more intelligent so they can do tasks like learning, adapting, self-correcting, and other tasks that are typically associated with human intelligence.

AI is "the theory and development of computer systems to be able to perform tasks that have traditionally required human intelligence," according to the Financial Stability Board.

This century has seen an evolution of artificial intelligence from an academic field to a major player in mainstream social and economic technology such as banking, voice-activated assistance, autonomous vehicles, and medical diagnosis.

One area where AI is useful in banking is digital payment systems. Digital payment systems are made up of many channels that allow money to be transferred digitally or online without a physical exchange of money. Many nations are switching from cash-based to digital payment systems on a global scale.

Because of features like rewards and discounts, ease of use, accessibility, safety and security, integration of funds across accounts, and reduced transaction costs, digital payment systems are seen as preferable to traditional cash-based payment systems. Digital payment features like chatbots, personalization and customization, fraud detection, regulatory compliance, and credit scoring are all made possible by artificial intelligence.

"The set of cognitive operations used by individuals and households to organize, evaluate, and keep track of financial activities" is the definition of mental accounting.It consists of multiple parts, some of which are described below:

Perception of Utility:
Kahneman and Tversky assert that expenses are not always seen as losses. The theory put forth by them and Thaler suggests two sorts of utility—acquisition utility and transaction utility—that a person can obtain from making a payment based on this observation and the potential. The difference between a product's price and "mental value" is known as acquisition utility. It bears similarities to the theory of consumer surplus in economics. The value that someone derives from believing they are receiving a good "deal" from a transaction is known as transaction utility.

Ability to Recall:
Paying with a non-cash method makes it harder to remember the specifics of the payment, claims Soman. It is challenging for people to leave a lasting memory trail when they make Hou et al.

Categorization:
According to Henderson and Peterson, categorization is the process of grouping information according to shared characteristics to speed up the recollection and evaluation of pertinent facts when making decisions. According to Zhang and Sussman, classifying finances makes it easier to process information in ways that are required for assessing expenditure possibilities. According to Soman, the payment mechanism selected for categorization has an impact on expenditure and consumption.

Malleability:
As needed, adjustments can be made to mental accounts to allow for increased consumption or savings.

Decoupling:

It was first used by Prelec and Loewenstein to describe the process of separating the enjoyment of consumption from the agony of payment. This effect is observed in non-cash payment mechanisms like credit cards, claim Chatterjee and Rose. Trope and Liberman attribute this to the psychological distance and opaqueness of these payment methods.

Need for the study:

For several reasons, the study "Influence of AI-Enabled Digital Payment Systems on Mental Accounting among Gen Y & Z" is essential. First off, academics and business professionals must comprehend how the integration of artificial intelligence into digital payment systems would affect the financial habits of Generation Z (born between 1997 and 2012) and Generation Y (born between 1981 and 1996).

These generations are influencing the direction of digital finance and are well-known for their rapid technological adoption rates. Examining how artificial intelligence (AI) affects mental accounting—the mental processes people employ to arrange, assess, and monitor their financial activities—can reveal information about their financial well-being, risk tolerance, and decision-making styles.

Furthermore, because these technologies have the potential to transform how people think about money and spending, research on how AI-enabled digital payment systems affect mental accounting can help create financial tools that are easier to use and more efficient.

REVIEW OF LITERATURE:

It can be challenging to identify digital-only banks from the digital services offered by traditional banks because they are sometimes referred to as virtual, digital, or Internet banking. The primary distinction between digital-only banks and physical branches is that the former relies entirely on digital infrastructure to handle all transaction types, while the latter does not. They operate entirely digitally and do not provide physical locations, in-person tellers, or customer services (Fathima, 2020; Sha & Mohammed, 2017). Consequently, it reduces the expenses of services, especially those that are typically provided by a branch (Fathima, 2020; Sha & Mohammed, 2017).

Self-service kiosks, mobile banking, and Internet banking are just a few examples of how customers have accepted digitalization and customer acceptance of services for decades, according to literature on banking and financial services (Kaushik & Rahman, 2015). Table 1 contrasts the services offered by traditional banks' mobile and online banking platforms with those of digital-only banks (BTPN, 2021; DBS, 2021; Otoritas Jasa Keuangan, 2021a)

The Indonesian government claims that digital-only banks exclusively conduct business via electronic means and provide services. They only have one head office and few, if any, physical locations (Otoritas Jasa Keuangan, 2021b). Similar to Indonesia, the Hong Kong government defines virtual-only banks as those that primarily provide retail banking services online or through other electronic channels rather than through physical branches (Hong Kong Monetary Authority, 2021).

It is typical for clients to open accounts with many banks. Younger clients can quickly switch banks and assess the services offered by other banks (Clemes, Gan, & Zhang, 2010). This motivates banks to use Internet technology to offer distinctive and outstanding services.

Younger consumers in particular have different experiences with digital offerings. Younger consumers are more likely to rely less on heuristic processing than elderly consumers (Yoon, 1997). Customers' requirements and reactions to marketing initiatives typically change as they progress through their life cycles and become more benefit-oriented (Akturan & Tezcan, 2012; Khan, Fatma, Shamim, Joshi, & Rahman, 2020).

Affective commitment is developed in younger customers through customer experience, but not in older ones. A larger impact of customer experience on affective commitment for younger (as opposed to older) customers supports the idea that consumers of varied age profiles react to brand-related stimuli in different ways. Young customers appear to be the most potential demographic for the creation of experience value-laden interactions (Khan, Hollebeek, Fatma, Islam, & Riivits-Arkonsuo, 2020).

Objectives of the study:

- To determine between the various factors determining the influence of AI-enabled digital payment systems on mental accounting among Gen Y & Z
- To understand the cause-and-effect order between the various influencing variables

Research Methodology:

This study investigates how generations Y and Z's experiences with AI-enabled digital payment systems affect their mental accounting. Empirical surveys were used in a mixed-method approach. For the same, 347 replies in total were gathered.

Data Analysis:

RELIABILITY TEST

Table 1

PARTICULARS	N OF ITEMS
Cronbachs Alpha	9

KENDALL'S W TEST

Table 2.1

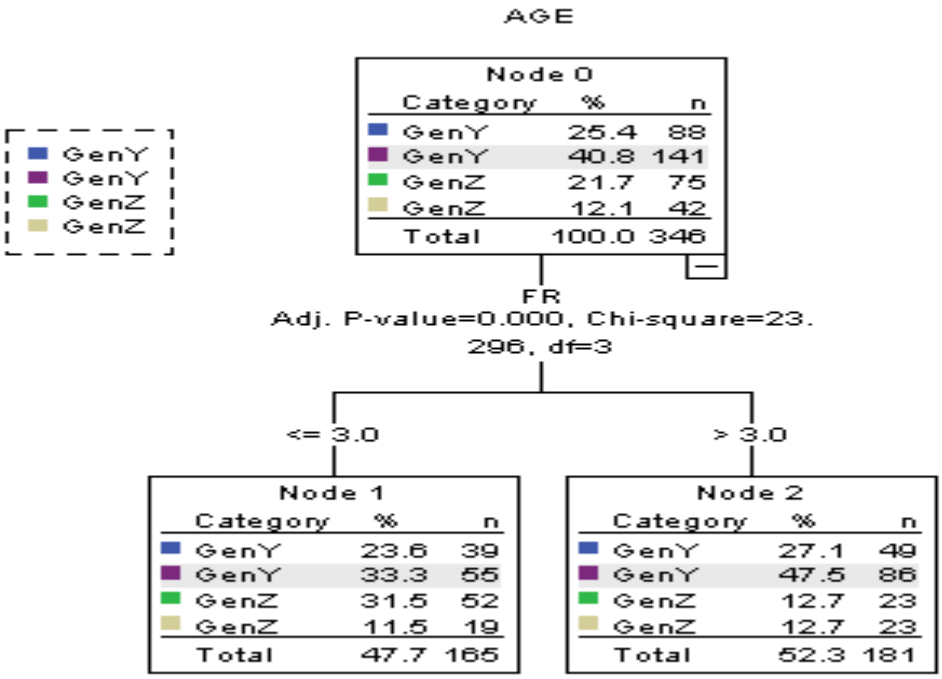
PARTICULARS	MEAN RANKS
N	346
Kendall's W[a]	.015
Chi-Square	42.579
Df	8
Asymp. Sig.	.000

Table 2.2

PARTICULARS	MEAN RANKS
EV	5.48
PI	4.56
SI	4.59
FR	5.17
PR	5.23
FT	4.83
CT	4.93
RW	5.01
IU	5.20

Tree Analysis
Table 3

Specifications	Growing Method	CHAID
	Dependent Variable	Age
	Independent Variables	Economic value(EV), Perceived ease of use(PI), Social Influence(SI), Firm reputation(FR), Promotion(PR), Features(FT),Curiosity(CT), Reward(RW), Intention to use(IU)
	Validation	None
	Maximum Tree Depth	3
	Minimum Cases in Parent Node	100
	Minimum Cases in Child Node	50
Results	Independent Variables Included	FR
	Number of Nodes	5
	Number of Terminal Nodes	3
	Depth	2



Findings and Suggestions:

- Table 1 describes the significant level for the reliability test is 0.05 and as 0.896 is greater than 0.05 hence the data is highly reliable.

- As per Tables 2.1 and 2.2, The null hypothesis is rejected since, according to the above table, every variable about Gen Y & Z and the impact of AI-enabled digital payment systems on mental accounting has a significance value of less than 0.05 at a 1 percent significance level. Thus, it is determined that, about Gen Y & Z, there is a notable variation in mean rankings regarding the impact of AI-enabled digital payment systems on mental accounting. The "Economic Value" has the highest ranking (5.48) among the nine significant elements influencing Gen Y and Z's use of AI-enabled digital payment systems. Thus, in terms of mental accounting, the AI-enabled digital payment systems for Gen Y & Z are impacted by the "Economic values" Variable. The investigation confirms that nearly every quality under consideration for the study's AI-enabled payment system aimed at Gen Y & Z is significant, with the respondents identifying "Economic Value" as the most influential aspect. Among the variable statements under digital payment practices towards Gen Y & Z, the respondent's attitude regarding AI-enabled digital payment systems in Economic value is perceived as a necessary digital payment system practice. The aforementioned statement is therefore statistically significant and has been determined to be the most affecting variable among all other attributes under digital payment practices toward Gen Y & Z in terms of influence.

- They are useful because they enable drilling down to specific nodes and navigating throughout the entire tree, graphical tree model presentations are among the most helpful. Regression trees and classification algorithms are becoming increasingly popular for dividing up data and locating local features in both small and large datasets. Models with a categorical dependent variable (the predicted variable) are included in classification trees. Continuous regression trees are among the types of regression trees. Although every endpoint will have the same anticipated value—a constant for that endpoint—trees can be used to model functions. Regression trees are so similar to classification trees, except that a predicted function value rather than a predicted classification will be the endpoint. Splits that result in the largest reduction in the sum of squares will be chosen, as the impurity criterion—rather than the Gini Index—is the sum of squares. The mean square error of the tree's predictions is the metric used for pruning. The table below shows the risk of the model, the gain node summary, and the tree analysis model summary. Above is a tree diagram that illustrates the influence of different AI-enabled digital payment systems on Gen Y and Z's mental accounting.

Conclusion:

In summary, Generation Y and Z's mental accounting practices are impacted by AI-enabled digital payment systems in a variety of ways that have a big impact on how they handle and see their money. As these technologies advance, they challenge long-standing mental accounting frameworks by reshaping conventional ideas of money and spending patterns.

The integration of AI in digital payment systems has streamlined financial transactions, providing convenience and efficiency. However, it has also blurred the boundaries between various mental accounts, potentially impacting the budgeting and decision-making processes of individuals in Gen Y and Z. The ease of digital payments may lead to a detachment from the physicality of money, making it easier to overspend without a tangible awareness of the financial consequences which is discussed in the study in detail

References:

Gupta, S. B., & Yadav, R. K. (2020): Study of Growing Popularity of Payment Appsin India. Test Engineering and Management, 82, pp 16110-16119.

Hou, L., Hsueh, S. C., & Zhang, S. (2021): Digital payments and households'consumption: A mental accounting interpretation. Emerging Markets Finance andTrade, 57(7), pp 2079-2093

Henderson, P. W., & Peterson, R. A. (1992): Mental accounting and categorization.Organizational Behavior and Human Decision Processes, 51(1), pp 92-117.

Zhang, C. Y., & Sussman, A. B. (2017): The role of mental accounting in householdspending and investing decisions. Client Psychology. New York: Wiley, Chicago BoothResearch Paper, (19-07).

Cheema, A., & Soman, D. (2006): Malleable mental accounting: The effect offlexibility on the justification of attractive spending and consumption decisions. Journalof Consumer Psychology, 16(1), pp 33-44.
Hancock, D., & Humphrey, D. B. (1997): Payment transactions, instruments, andsystems: A survey. Journal of Banking & Finance, 21(11-12), pp 1573-1624.

Raghubir, P., & Srivastava, J. (2008): Monopoly money: The effect of paymentcoupling and form on spending behavior. Journal of Experimental Psychology: Applied,14(3), p 213.Zhang, C. Y., & Sussman, A. B. (2018): Perspectives on mental accounting: An
exploration of budgeting and investing. Financial Planning Review, 1(1-2), e1011.