

Article

Assessing Users' Behavior on the Adoption of Digital Technologies in Management and Accounting Information Systems

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Abstract: The exponential trend of digital technologies, doubled by the mobility restrictions imposed during the COVID-19 pandemic, caused a paradigm shift in traditional economic models. Digital transformation has become increasingly common in all types of organizations and affects all activities. Organizations have adopted digital technologies to increase efficiency and effectiveness in management, marketing, and accounting. This paper aims to assess the impact of digital transformation on project management, marketing, and decision-making processes in users' perceptions. The study begins with theoretical research on the digitalization of management and accounting information systems and conducts an empirical investigation based on a questionnaire. First, the paper assesses users' perceptions of implementing digital technologies. The answers of 442 professionals from project management, marketing, and decision making were processed using structural equation modeling. The results show that users' acceptance of digitalization is higher in decision making due to the significant contribution of artificial intelligence in repetitive decision making. Project management and marketing also benefit from digitalization, yet non-repetitive activities remain mainly the responsibility of the human factor.

Keywords: digital technologies; behavior; information systems; management; marketing; decision making



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1. Introduction

Digital transformation of organizational activities through Industry 4.0 determines an increase in efficiency and effectiveness of the employees due to increased work satisfaction [1,2]. Disruptive technologies can contribute to remodeling organizational functions and work models applied within organizations [3–6]. Increasing the information systems' digitalization through new technologies is a viable solution for increasing work satisfaction, efficiency, and effectiveness [7].

In recent years, the progress of emerging technologies such as artificial intelligence (AI), big data (BD), blockchain (BC), and cloud computing (CC) has been the basis of the industrial revolution. The new technologies' implementation has significantly influenced project management, marketing, decision making, and accounting [8,9]. Digital transformation of accounting and management information systems has generated almost complete automation of elementary operations. The implementation of emerging technologies has transformed and continues to transform the entire process of project management (PM), marketing (Mk), the decision-making process (DMP), and accounting, leading to a substantial change in financial, accounting, and managerial information systems.

These emerging technologies contribute to greater transparency and increase the security of the organization's operations. The new technologies can be used in all stages of the management and marketing processes, contributing to optimal decisions. Data can be collected using BD and CC, shared through BC, and processed by AI-based technologies. BC increases information quality and transparency and ensures increased validity and reliability [9].

This study aims to evaluate the users' perception and behavior of adopting digital technologies in PM, Mk, and DMP. The innovation of the paper consists of the simultaneous and comparative approach of the three domains (MP, Mk, and DMP). The impact assessment of the four technologies implemented in management, marketing, and accounting (AI, BD, BC, and CC) in the users' perception addressed the gap found in the literature. Moreover, measuring the satisfaction obtained after implementing new technologies represents a gap that the paper addresses.

The paper is structured into six sections: the introduction is followed by a literature review, a section on the research methodology, two sections present the research results and discussions, and finally, the conclusions show the practical and theoretical implications.

2. Literature Review

Virtual environments and disruptive technologies significantly impact management, marketing, and accounting activities. Digitization of information systems brings significant benefits because it eliminates routine, repetitive activities, leaving time for activities with high-added value, such as problem-solving, analysis, and consulting [10,11]. As a result, professionals in PM, Mk, and DMP can focus on strategic and operational activities being left for AI solutions.

CC-based technology uses fast Internet connections to provide data, adopt optimal management decisions, run projects smoothly, and enhance interactive marketing [12–15].

The essential objective of a management and accounting information system is data collection, processing, and interpretation, as well as management and disclosure of information to internal users in the process of approaching decision making and project management and external users in the case of marketing [16]. Information systems strengthened and improved with digital technologies enhanced the decision-making, project management, and marketing processes [15]. CC-based technology favors more accessible data collection and processing for management and marketing. In addition to transparency, CC technology provides better data security, improving synchronization and reducing the risks associated with unsynchronized data. CC technology drives the digital transformation of management, marketing, and accounting. CC combined with BD provides easy, fast, and transparent access to large amounts of information [3–5,17,18] used by AI technology for decision making. The three technologies and BC also bring many opportunities and benefits, causing a paradigmatic and structural change in an organization's information systems.

Through machine learning and deep learning, AI allows the process of large amounts of data swiftly, which is extremely useful in decision making, project management, marketing, and accounting. [7,9]. For example, a digitalized management and accounting information system can swiftly and efficiently process the data needed to adopt the best decisions. In addition, AI allows the detection of irregularities and the removal of errors in the initial stages and contributes to improving project management, marketing, and accounting processes, significantly reducing the risk of fraud in financial accounting [3,9,15].

AI can also estimate project management time or costs and interpret customer behaviors in marketing. Prediction involves generating information about future processes based on past data. AI can use comparative methods, parametric models, or analytical models to estimate time and costs in project management. In addition, AI can use structural equation modeling, neural network analysis, or fuzzy analytic hierarchy process to determine behavioral intentions. AI use generates benefits regarding the accuracy of predictions, optimal

allocation of resources, detection of desynchronizations, and critical patterns, causing better decisions and increasing efficiency [19–24].

BC is a distributed and shared ledger of blocks linked by cryptographic keys. BC advantages come from the speed of sharing, transparency of information, and validity of shared information. In the network, information must be validated by all network members, with no pre-eminence of a central server that could manipulate the information. Blockchain verifies a record's validity and ensures data reliability [25]. Due to its safety, security, and decentralization features, BC is useful in logistics, project management, customer database management, financial accounting, financial services, and insurance [26–32].

CC and BC allow sharing of a large amount of data (BD). BD constitutes the raw material for AI technologies, contributing to enhanced management and accounting information systems, generating higher quality information in a shorter time, and savings costs. Organizations can use these technologies separately, but the synergistic effects generated by their integrated use are robust, leading to the significant improvement of management and accounting information systems [9].

The accelerated use of digital technologies contributed to redefining organizational structures and reinventing business models [33]. Digital transformation represents interweaving physical and digital processes within decentralized systems to improve organizational information systems. Using analytical tools based on CC, BD, and AI will automate the decision-making, project management, and marketing processes [33–37].

The constant adaptation of information systems to technological changes leads to redesigning jobs in PM, Mk, and DMP. The role of professionals translates from data collection and interpretation activities to complex decision-making activities, problem-solving, and strategic communication with internal and external stakeholders [38,39]. Starting with these theoretical assumptions, the paper defined the research question and the first hypothesis:

Hypothesis 1 (H1). *In the users' perceptions, the four disruptive technologies (AI, BD, BC, and CC) are useful in PM, Mk, and DMP.*

External pressures influenced the implementation of digital technologies [40]. Hinings et al. [41] point out that an organizational vision of digital transformation is needed because many organizations act reactively to external pressures without having a clear plan, thus compromising the digital transformation results [42].

Various researchers investigated the implementation of CC in information systems used by MP, Mk, and DMP. For example, Ionescu et al. [43] highlighted the cost savings generated by migrating accounting and auditing systems to CC-based solutions. Christauskas and Miseviciene [16] revealed the critical role of CC in improving decision quality due to the information speed, accessibility, and transparency in the cloud. In addition, logistics activities can be improved by information systems based on CC, and the non-synchronization risks are eliminated due to transparency and interoperability [44].

AI allows professionals to focus on more critical activities, such as decision making and problem solving [45]. AI-based IT solutions perform elementary and repetitive tasks. Reducing operational costs, increasing efficiency by reducing operating time, and increasing the information quality make IT solutions efficient [9,46–48].

BC can profoundly influence information systems [49]. Since the information is saved in data blocks linked together by cryptography, this information is transparent and permanently verifiable [50]. Therefore, BC will determine the development of new information systems, ensuring transparency and integrity of data, automatic processing and interpretation of information, and fast and efficient decision making [9,51,52]. However, the implementation of digital technologies (AI, BD, BC, and CC) in management, marketing, and decision-making processes may incur resistance from professionals. Therefore, our paper aims to investigate the acceptance of digital technologies by professionals in the three organizational areas (MP, Mk, and DMP), considering technology users' satisfaction and its influence on future behavioral intention and use.

3. Materials and Methods

The effects of management and accounting information systems transformation are assessed through a survey conducted among professionals in PM, Mk, and DMP. The stages of researching users' perceptions regarding the impact of digitalization in PM, Mk, and DMP are presented in Figure 1.

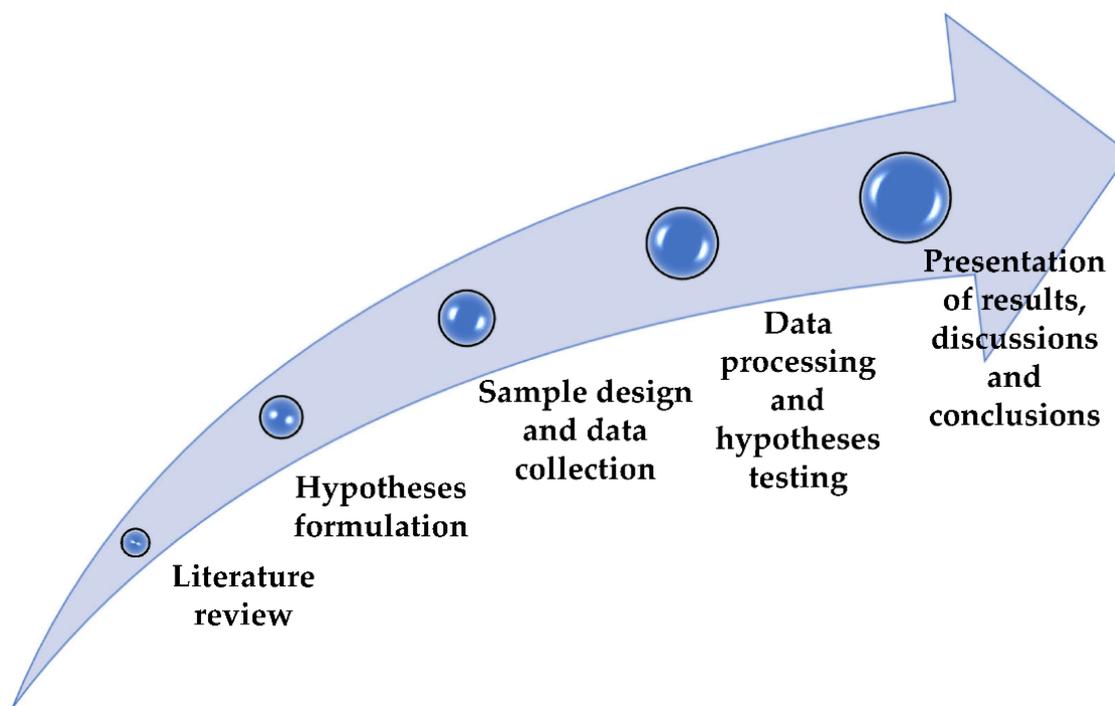


Figure 1. Research process. Source: own construction.

The Technology Acceptance Model (TAM) is a frequently used model for assessing users' intentions to accept the implementation of new technologies and the actual use of technologies in their activities [53]. Davis's TAM model [54] is based on the rational action theory [55] and the planned behavior theory [56]. TAM has perceived ease of use and perceived usefulness as the main determinants of the behavioral intention to use new technology [54]. Following a meta-analysis of the literature, King and He [57] demonstrated that perceived usefulness is the most important predictor of behavioral intention. Various studies applied the TAM model in several fields [58,59]. Considering the specifics of the use (for professional purposes) of the four technologies implemented in management, marketing, and accounting (AI, BD, BC, and CC), we consider that the perceived usefulness has a determining role in technology acceptance, as shown [57]. However, the literature on assessing behavioral intentions to use new technologies in accounting and management information systems using a variant of the TAM model is limited [58–61]. Few studies address the issue of accountants' perception and behavior regarding new technology acceptance.

Our research process used a modified TAM model, adapted to PM, Mk, and DMP, and the four technologies frequently implemented in management, marketing, and accounting (AI, BD, BC, and CC) which have as essential determinants the perceived usefulness of technology for specific areas. We defined this model as the perceptual model of the technology's usefulness (PMTU). Perceived usefulness for each area influences the behavioral intention to use a technology (AI, BD, BC, and CC). Based on this assumption, the paper proposes the following hypothesis:

Hypothesis 2 (H2). *In the users' perception, usefulness significantly influences behavioral intent to use digital technologies in PM, Mk, and DMP.*

Unlike the TAM model, the PMTU model does not integrate the easy-to-use latent variable, considering that the digital technologies’ users are the organizations’ employees, previously included in training programs to facilitate the use of these technologies.

Behavioral intention to use technology as a latent variable has two antecedents, similar to the TAM model [53]: intention to use and attitude towards use (IU and ATU). However, as other researchers [58] proposed, the PMTU model is supplemented with two latent variables: actual use and users’ satisfaction. Actual use has one antecedent—the extent of use (EU). User satisfaction has three antecedents illustrated by using new digital technologies (AI, BD, BC, and CC) in the three areas (PM, Mk, and DMP). To assess the relationships between the two latent variables (actual use and users’ satisfaction following use), two hypotheses must be tested for confirmation:

Hypothesis 3 (H3). Behavioral intent to use exerts a significant positive influence on the actual use of digital technologies in PM, Mk, and DMP in users’ perception.

Hypothesis 4 (H4). The most satisfied users of the implementation of digital technologies are DMP professionals.

Figure 2 illustrates the theoretical PMTU model.

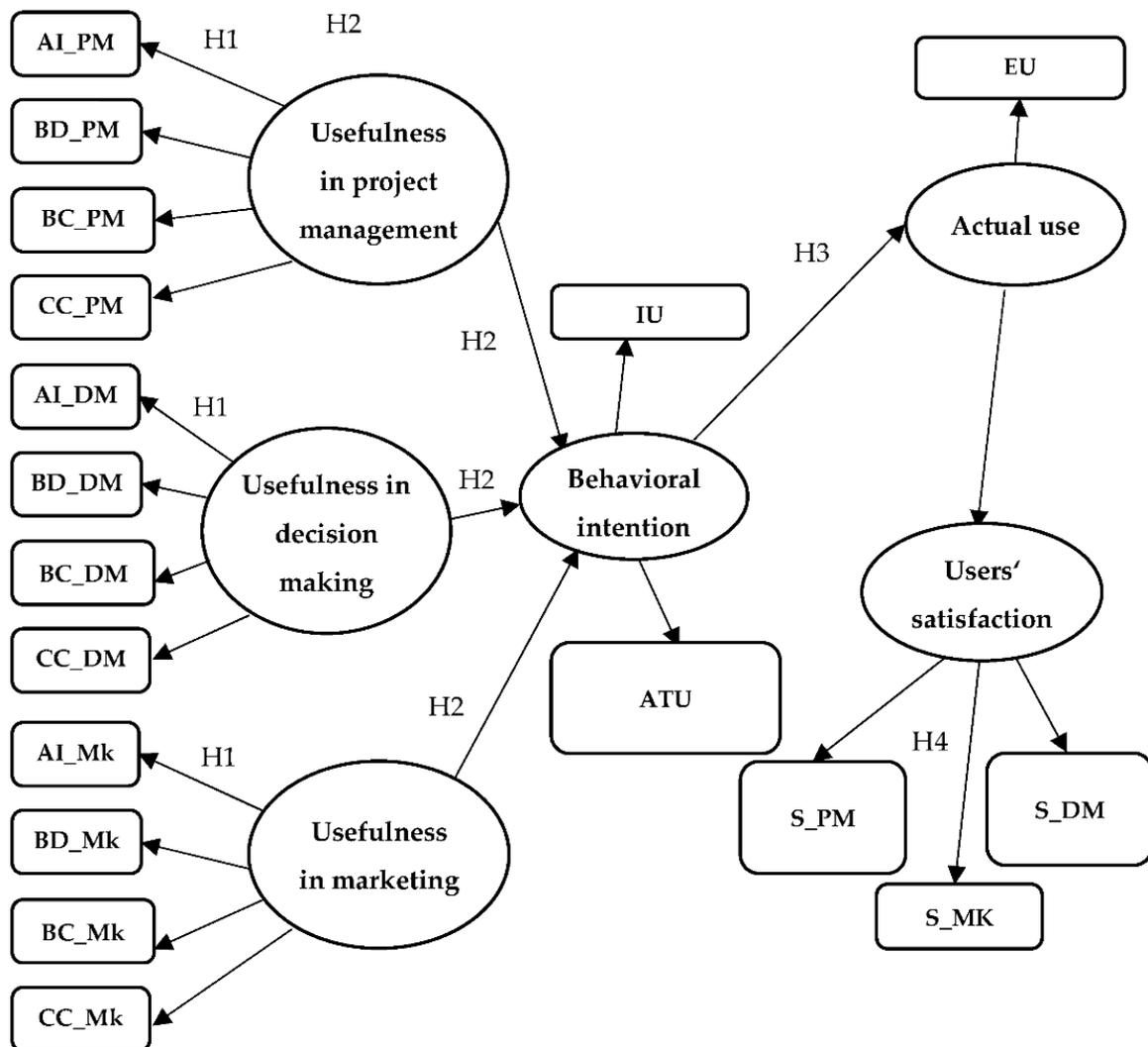


Figure 2. Theoretical PMTU model. Source: own construction based on [3,5,18–40,53–58].

Based on the PMTU theoretical model, we built a questionnaire containing the model’s exogenous (observable) variables as items, which will be used to confirm the hypotheses in the structural equation modeling (SEM). The basic PLS algorithm is as follows [62]:

$$\eta = B\eta + \Gamma\xi + \zeta, \tag{1}$$

where:

- η, ξ —endogenous and exogenous latent variables;
 - B —matrix of regression coefficients relating the latent endogenous variables to each other;
 - Γ —matrix of regression coefficients relating the endogenous variables to exogenous variables;
 - ζ —disturbance.
- The latent variables are linked to observable variables as follows:

$$y = \Lambda_y\eta + \varepsilon, \tag{2}$$

$$x = \Lambda_x\xi + \delta, \tag{3}$$

where:

- Λ_y, Λ_x —matrices of factor loadings;
- ε, δ —vectors of uniqueness.

The survey was conducted between May and July 2022 among 442 professionals in PM, Mk, and DMP. A total of 460 questionnaires were sent by email to professionals in PM, Mk, and DMP, ensuring anonymity and data confidentiality to combat common biases. The questionnaire includes general questions regarding perceptions of the new technologies used and does not include data that requires an institutional review board and informed consent statement. Table 1 shows the questionnaire structure and the Likert-type scales for evaluating the responses.

Table 1. Questionnaire structure.

Variables	Items	Scales
Demographic variables	Gender Age	Male (1), Female (2) 18–30 years (1), 31–45 years (2), 46–65 years (3)
Usefulness in project management	AI_PM BD_PM BC_PM CC_PM	
Usefulness in decision making	AI_DM BD_DM BC_DM CC_DM	1 to 5 (1—not helpful at all, 5—very useful)
Usefulness in marketing	AI_Mk BD_Mk BC_Mk CC_Mk	
Behavioral intention	ATU IU	1 to 5 (1—not at all excited, 5—very excited) 1 to 5 (1—the smallest, 5—the biggest)
Actual use	EU	1 to 5 (1—minimal extent, 5—maximal extent)
Users’ satisfaction	S_PM S_DM S_MK	On a scale of 1 to 5 (1—very small, 5—very high)

Source: own construction based on [3,5,18–40,53–58].

Within the SEM model applied to the PMTU theoretical model, intention to use, attitude towards use, actual use, and users' satisfaction are latent (endogenous) variables. Table 2 shows descriptive statistics for the questionnaire.

Table 2. Descriptive statistics.

	Min	Max	Frequencies					Mean	Std. Deviation	Skewness	Kurtosis
			1	2	3	4	5				
Gender	1	2	53.3%	46.7%	-	-	-	1.47	0.499	0.132	-1.992
Age	1	3	26.1%	42.4%	31.5%	-	-	2.05	0.758	-0.091	-1.251
AI_PM	2	5	0%	5.7%	21.3%	44.0%	29.0%	3.96	0.855	-0.479	-0.428
BD_PM	1	5	0.5%	5.7%	35.6%	37.0%	21.3%	3.73	0.875	-0.121	-0.564
BC_PM	2	5	0%	6.1%	23.6%	46.7%	23.6%	3.88	0.839	-0.393	-0.400
CC_PM	1	5	0.7%	4.5%	19.0%	44.7%	31.1%	4.01	0.863	-0.699	0.260
AI_DM	2	5	5.9%	14.5%	22.4%	32.0%	25.2%	4.03	0.945	-0.595	-0.668
BD_DM	1	5	0.7%	9.1%	24.9%	37.2%	28.1%	3.83	0.935	-0.488	-0.514
BC_DM	2	5	0.5%	8.2%	23.4%	44.9%	23.1%	3.75	0.967	-0.191	-0.991
CC_DM	2	5	0.2%	15.0%	31.3%	34.0%	19.5%	3.85	0.992	-0.422	-0.890
AI_Mk	1	5	0%	7.5%	20.6%	33.3%	38.6%	3.56	1.182	-0.489	-0.673
BD_Mk	1	5	0.2%	10.4%	21.1%	42.9%	25.4%	3.83	0.963	-0.451	-0.543
BC_Mk	1	5	0%	10.7%	30.4%	32.4%	26.5%	3.82	0.896	-0.480	-0.274
CC_Mk	1	5	0%	11.6%	22.7%	34.5%	31.3%	3.58	0.974	-0.104	-0.912
ATU	1	5	3.2%	9.3%	26.5%	34.2%	26.8%	3.72	1.001	-0.410	-0.487
IU	1	5	1.6%	10.2%	27.9%	35.4%	24.9%	3.72	1.056	-0.552	-0.287
EU	1	5	0.5%	6.3%	37.6%	34.7%	20.9%	3.69	0.887	-0.062	-0.625
S_PM	2	5	0%	12.2%	22.7%	34.0%	31.1%	3.84	1.002	-0.409	-0.925
S_DM	1	5	0.5%	8.2%	25.6%	36.7%	29.0%	3.86	0.946	-0.423	-0.604
S_MK	1	5	0.5%	7.9%	23.4%	46.5%	21.8%	3.81	0.881	-0.485	-0.194

Source: own construction using SPSS v.20.

4. Results

The theoretical model was tested using structural equation modeling in the partial least squares variant. The software for structural equation modeling, SmartPLS v3.0, allows for establishing the relationships among the latent variables. Latent variables have exogenous variables (questionnaire items) as antecedents. For example, usefulness in PM, Mk, and DM are latent variables having as antecedents the utility perceived by users for each of the four technologies (AI, BD, BC, and CC). Other latent variables are behavioral intention (with the intent to use and attitude towards use as antecedents), actual use (with the extent of use as the antecedent), and users' satisfaction (with the satisfaction of using new digital technologies in PM, Mk, and DM). The first criterion of the model reliability is the loading for each antecedent, which must be greater than 0.7 [63,64]. As seen in Figure 3, all the antecedents of the latent variables have a loading above 0.7.

According to Hair et al. [63] and Garson [64], the internal validity and reliability of the model are excellent, with Cronbach's Alpha (CA) and Composite Reliability (CR) above 0.8 and Average Variance Extracted (AVE) above 0.6 (Table 3). Moreover, the fit model is excellent, with SRMR being 0.078 and NFI 0.910.

Analyzing outer loadings for the latent variables which describe usefulness in PM, Mk, and DM, we can state that Hypothesis H1 is confirmed as valid (Table 4). The four disruptive technologies (AI, BD, BC, and CC) significantly contribute to defining the three latent variables (usefulness in project management, marketing, and decision making).

Running a basic bootstrapping procedure with bias-corrected, two-tailed, and 0.05 significance level, SmartPLS 3.0 calculated the path coefficients in the PMTU model (Table 5). The path coefficient expresses the size of a relationship between two latent constructs [65]. Values of the path coefficients above 0.3 highlight causal solid relationships. Values above 1.6 for T statistics and below 0.005 for *p* values show an increased relevance of the path coefficients [64].

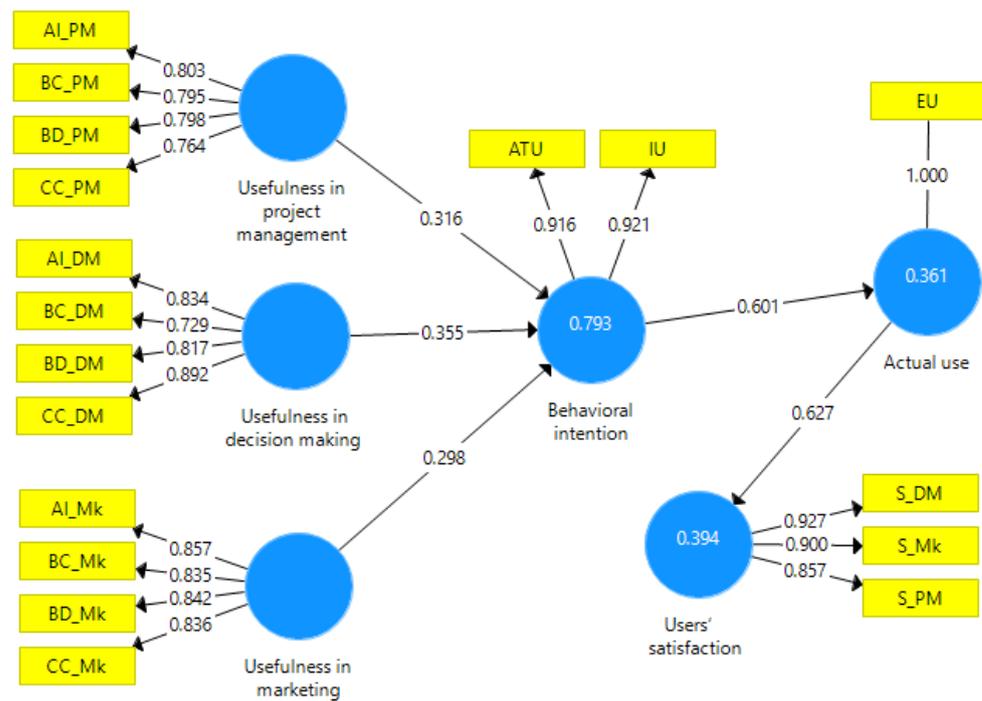


Figure 3. Applied model. Source: own construction using SmartPLS v3.0.

Table 3. Validity and reliability.

	CA	CR	AVE
Behavioral intention	0.814	0.915	0.843
Usefulness in decision making	0.835	0.891	0.672
Usefulness in marketing	0.864	0.907	0.710
Usefulness in project management	0.801	0.869	0.624
Users' satisfaction	0.878	0.924	0.802

Source: own construction using SmartPLS v3.0.

Table 4. Outer loadings for usefulness in PM, Mk, and DM.

	Outer Loadings for Usefulness in Decision Making	Outer Loadings for Usefulness in Marketing	Outer Loadings for Usefulness in Project Management
AI_DM	0.834		
BD_DM	0.817		
BC_DM	0.729		
CC_DM	0.892		
AI_Mk		0.857	
BD_Mk		0.842	
BC_Mk		0.835	
CC_Mk		0.836	
AI_PM			0.803
BD_PM			0.798
BC_PM			0.795
CC_PM			0.764

Source: own construction using SmartPLS v3.0.

Table 5. Path coefficients.

	Original Sample	T Statistics	p Values
Usefulness in decision making → Behavioral intention (H2)	0.355	7.283	0.000
Usefulness in marketing → Behavioral intention (H2)	0.298	7.003	0.000
Usefulness in project management → Behavioral intention (H2)	0.316	9.426	0.000
Behavioral intention → actual use (H3)	0.601	20.585	0.000
Actual use → users' satisfaction	0.627	23.781	0.000

Source: own construction using SmartPLS v3.0.

Analyzing the causal relationships in Table 5, we found Hypothesis H2 valid. Usefulness significantly influences behavioral intent to use digital technologies in PM, Mk, and DMP in users' perception. Investigating Hypothesis H3, we found that behavioral intent to use exerts a significant positive influence on the use of digital technologies in PM, Mk, and DMP in users' perception. Hence, Hypothesis H3 is also valid.

Analyzing the outer loadings of antecedents of the latent variable user satisfaction with digital technologies in the three domains (PM, Mk, and DMP), as well as users' perception of the usefulness of digital technologies in the three domains, we found Hypothesis H4 valid (Table 6). The most satisfied users of the implementation of digital technologies are DMP professionals. Outer loading for satisfaction in DMP is 0.927 (S_DM), while usefulness in decision making significantly influences behavioral intention (path coefficient 0.355).

Table 6. Outer loadings for users' satisfaction in PM, Mk, and DM and path coefficients for usefulness in PM, Mk, and DM.

Outer Loadings	Users' Satisfaction	Path Coefficients	Behavioral Intention
S_DM	0.927	Usefulness in decision making	0.355
S_Mk	0.900	Usefulness in marketing	0.298
S_PM	0.857	Usefulness in project management	0.316

Source: own construction using SmartPLS v3.0.

The proposed theoretical model PMTU, tested using structural equation modeling, demonstrates high predictive performance for the PLS path model (Q^2 indicators have values above 0.35). Table 7 presents the indicators that describe the model's predictive performance for the latent output variables: actual use, behavioral intention, and users' satisfaction.

Table 7. Predictive performance for the PLS path model.

	RMSE	MAE	Q^2 Predict
Actual use	0.757	0.614	0.432
Behavioral intention	0.462	0.352	0.789
Users' satisfaction	0.729	0.607	0.474

Source: own construction using SmartPLS v3.0.

The model's predictive performance provides the opportunity to use the model on other samples in future research [63] in the three domains (PM, Mk, and DMP) or other areas of organizational activity.

5. Discussion

Many activities in the MP, Mk, and DMP will become hybrid, having a human and a digital component. As a result, specialists in these areas will have an extensive mix of skills, which, in addition to the specific skills, will also include digital skills [36,40].

The paper proposes an original model (PMTU) derived from the Technology Acceptance Model (TAM), allowing the assessment of perceived usefulness and user satisfaction of digital technologies. Unlike the TAM model, we only consider the digital technologies' usefulness, which directly influences behavioral intention and indirectly influences actual use. The model also includes user satisfaction as an outcome variable influencing future usage.

Following the research (Hypotheses H1 and H4), we have shown that the digital technologies used in the three areas (PM, Mk, and DMP) are perceived as having significant usefulness and generating user satisfaction. The four disruptive technologies (AI, BD, BC, and CC) are relevant in their usefulness for all areas. They are considered useful in the digital technologies users' perception in PM, Mk, and DMP. The highest satisfaction regarding digital technologies is registered among DMP professionals. AI-based technologies facilitate work by eliminating repetitive decisions. Due to digital technology implementation and the possibility of managing a large amount of data, DMP is substantially changing, and users are satisfied with implementing digital technologies.

Automation of routine activities will have a significant impact on the future of management, marketing, and accounting professions. This means that digital transformation will lay the foundation for more analytical, creative professions with a higher added value [66]. However, even before the digital transformation, accounting provided information for several areas: managerial decision making, project management, human resource management, marketing, financial management, accounting, taxation, and internal control [40,67,68]. Thus, the digital skills of management and marketing professionals will have to be combined with skills such as analysis, synthesis, problem solving, digital, and communication.

Research (Hypotheses H2 and H3) demonstrated that the perceived usefulness of digital technologies used within the three areas (PM, Mk, and DMP) influences users' behavioral intention, influencing the actual use of technologies afterward. The usefulness of technologies overcomes the fear that these technologies will destroy jobs. Implementing digital technologies requires, in addition to clear and structured planning, a change in employees' mentalities regarding performing tasks and innovation [69]. Most project management, marketing, and decision-making activities can be translated into a digital environment characterized by transparency, accessibility, safety, and security. Professionals in these fields show a high behavioral intention to use the new technologies that ultimately translate into actual use.

5.1. Empirical and Managerial Implications and Contributions

Predictive analysis based on AI, BD, and BC is an essential tool for time and cost estimates and interactive management of customer databases. Therefore, digital technologies can be optimally used in marketing analysis and decision making. Managers must encourage digital technology implementation in these areas, showing that employees' efficiency and effectiveness can increase significantly.

Information systems digitalization increases the efficiency of internal (managerial) and external (marketing) communication with clients. First, through this improved communication, the accessibility and transparency of information increase substantially. Second, digital transformation causes an increase in the speed of information transmission (through BC and CC) and processing (through AI and BD), eliminating the gap between decision making and implementation. Third, the adaptability of decision-making systems is substantially improved due to the collection and processing of a large amount of data, which enables better predictions and future behavior models. Fourth, the possibility of customizing digital solutions can facilitate usefulness, as they can be adapted to any organization area.

5.2. Theoretical Implications and Contributions

Digital transformation significantly impacts all activities and professions in accounting, management, and marketing. Due to digital transformation, we highlight the evolution of the professional in the PM, Mk, and DMP areas from a simple executant, to a role with entrepreneurial characteristics. In this position, analytical skills, problem solving, and communication with internal and external stakeholders are decisive.

The paper's originality consists of the simultaneous approach of the three areas (PM, Mk, and DMP) and the assessment of the four technologies' impact (AI, BD BC, and CC) on the PM, Mk, and DMP professionals. We proposed a model (PMTU) derived from TAM for this approach. The model enables the assessment of perceived usefulness and user satisfaction of digital technologies and can be used in the future in other fields.

5.3. Limitations and Further Research

The paper aimed to analyze the digital transformation impact on the PM, Mk, and DMP areas, proposing an original model (PMTU) derived from TAM. The study's limitations may emerge from the limited geographical representativeness (Romanian professionals from the PM, Mk, and DMP). Therefore, we adopted a transversal research strategy based on a questionnaire survey conducted among professionals. This limitation can be overcome through a chronological approach by further research and considering other areas of the organization. Therefore, studying human-machine interaction is needed to provide a clear perspective, based on user perceptions, to those dealing with the digitalization of information systems.

6. Conclusions

Digital transformation is crucial for an organization to have a competitive advantage. Adopting digital technologies in MP, MK, and DMP allows organizations to respond more agilely to any opportunity or challenge. Companies have used AI, BC, BD, and CC technologies to organize and analyze the financial and accounting information required in PM, Mk, and DMP. While AI can be used primarily for adopting repetitive decisions without the supervision of the human factor, the CC provides general and easy access. BC ensures the security of information and improves the transparency of the management and accounting information system. The model proposed (perceptual model of the technology's usefulness) derived from the Technology Acceptance Model aims to evaluate the perceived usefulness, behavioral intention, actual use, and users' satisfaction with digital technologies in MP, MK, and DMP.

Innovation in digital technology has contributed to management and accounting information systems development, improving organizational performance. In addition, simplifying tasks has generated opportunities for organizations in management and marketing by increasing customer trust and enhancing reputation and image. However, digital transformation must ensure the interoperability and integration of IT solutions to enhance these benefits [70].

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Abbreviations

Acronyms

AI	Artificial intelligence
BD	Big data
BC	Blockchain
CC	Cloud computing
PM	Project management
Mk	Marketing
DMP	Decision-making process
TAM	Technology Acceptance Model
PMTU	Perceptual model of the technology's usefulness
AI_PM	The usefulness of artificial intelligence in project management
BD_PM	The usefulness of big data in project management
BC_PM	The usefulness of blockchain in project management
CC_PM	The usefulness of cloud computing in project management
AI_DM	The usefulness of artificial intelligence in decision making
BD_DM	The usefulness of big data in decision making
BC_DM	The usefulness of blockchain in decision making
CC_DM	The usefulness of cloud computing in decision making
AI_Mk	The usefulness of artificial intelligence in marketing
BD_Mk	The usefulness of big data in marketing
BC_Mk	The usefulness of blockchain in marketing
CC_Mk	The usefulness of cloud computing in marketing

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