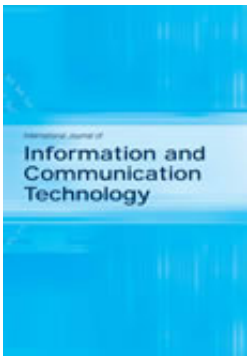

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Dynamic algorithmic frameworks for professional art software selection using novel methodologies

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Dynamic algorithmic frameworks for professional art software selection using novel methodologies

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Abstract: The growing diversity and intricacy of commercial art software raise substantive difficulties for artists, designers, and corporations in the identification of the most appropriate solution for their needs. The paper being discussed proposes a new methodology for the appraisal and selection of commercial art software using dynamic decision-making algorithms. This approach counts on the development of user preferences and priorities, as a hybrid approach combining multi-criteria decision analysis (MCDA) with dynamically adjusted weighting schemes. The resulting process of this methodology takes in many qualitative and quantitative factors, such as user-friendliness, performance ability, feature sets, price, and compatibility overall. Case studies and simulations illustrated the ability of the adopted procedure to guide the user in making the right choice while being ready to apply the changes to the conditions at any moment. The findings emphasised the advantages of dynamic decision-making algorithms over conventional static evaluation models which were flexible and user-oriented mechanisms for the selection of the software in the creative industry. The findings of this research will be a reliable tool for decision-making in the creative field as well as, and the available art software will be utilised more productively and satisfyingly.

Keywords: dynamic decision making; professional art software; multi criteria evaluation; adaptive algorithms; software selection framework.

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1 Introduction

In the digital era that is constantly changing, professional art software is a crucial instrument that has to be available to artists, designers, and creative professionals. These

software applications give users the ability to create, edit, and show artistic content with accuracy and effectiveness. Professional art software includes a wide variety of tools that can handle a variety of creative tasks, from digital painting to 3D modelling and animation. But choosing the most appropriate software for their needs becomes a headache for users when a plethora of options are available, and features and technologies are being consistently improved. In addition, budget limitations, compatibility problems, and sudden changes in user preferences complicate the decision process further (Parraman, 2019; Kleynhans et al., 2020).

In the past, the selection of professional art software was based on static comparison factors such as features, prices, and customer ratings. While they shed some light on the capabilities of a software, these methods often fail to address specific user requirements and the dynamic nature of the creative industry. For instance, an illustrator might want software that is advanced in digital painting while a 3D animator needs dependable modelling and rendering, etc. The adaptability of static evaluation mechanisms to such variability and changes in tastes can lead to poor choices or even dissatisfaction among users (Mangum and Heginbotham, 2002; Cohen et al., 2017).

In response to these challenges, researchers and practitioners have looked at different routes of decision making that can help improve the software selection process. These range from simple and familiar to advanced ones, among which dynamic decision-making algorithms account for a considerable share (Xu and Wang, 2022). For instance, the distinction between static models and dynamic algorithms relates to the integration of user priority and other situational factors into the process. These technologies help users evaluate the options of the software based on instant feedback, developing criteria, and multidimensional comparisons. In integrating the qualitative and quantitative aspects, the dynamic decision-making algorithms will be a comprehensive and flexible model for professional art software selection (Jiang et al., 2024; Memmolo et al., 2015).

The importance of an effective software selection process reaches far beyond the impact on individual users to also encompass organisations and industries that rely on creative professionals. For example, agencies such as animation studios, graphic design firms, and advertising companies often invest significant amounts of capital in software licenses, training, and infrastructure (Jackson, 2015). Poorly informed choices in selecting software can lead to a loss of resources, a decrease in productivity, and conflicts between existing workflows. Moreover, the rising trend of remote teamwork coupled with cloud-based technologies has brought additional factors to the attention of software researchers, such as software scalability, integration capabilities, and data security. These variables underscore the necessity of a methodical and rapidly evolving approach to software evaluation and selection (Devi et al., 2019; Andrews, 2013).

Recently, progress in artificial intelligence (AI), machine learning (ML) and multi-criteria decision analysis (MCDA) has resulted in creative methods for complicated decision-making tasks. Dynamic decision-making processes pull off these technologies to make suggestions that adapt and are based on data (Li et al., 2013). For example, the MCDA techniques lend the users the ability to evaluate several software's distinctive features such as usability, performance, features, cost, and customer support ultimately showing which software is the best product when placed together by the company. By giving different weights to each of these elements and by allowing dynamic readjustments, users can focus on factors that are most consistent with their preferences.

Additionally, systems for AI-based recommendations can look at user behaviour, market dynamics, and software reviews to suggest personalised recommendations (Oliveira et al., 2018; Xu et al., 2022).

In professional art software selection, dynamic decision-making algorithms have been adopted for a variety of advantages. Firstly, the solution is user-centred, projecting the software recommendations that meet the requirements of individuals or organisations (Liu, 2022). Secondly, through real-time data, and feedback the software leads to accurate decisions. Thirdly, it involves the evaluation of various software options in a structured and transparent process. Yet, there are also some adverse challenges presented, for example, ensuring data accuracy, addressing computational complexity, and climbing the slow resistance. Hence, an in-depth understanding of algorithms and their impact on real-world scenarios is critical for successful innovation (Ye and He, 2024; Ezell et al., 2021).

This work presents one model of artificial intelligence in dynamic simulations of user-oriented software solution development for the automation of novel product configuration. The technique proposed in this paper combines MCDA methods with dynamic weighting habits to answer the questions posed by static assessment models. Thus, this model enables a balanced evaluation of the software menu by utilising both qualitative and quantitative indicators. Furthermore, user experience and contextual information will lead to more adaptable and relevant recommendations. Finally, the authors advertise real-case studies and simulations that reveal the novel strategy's efficacy in solvable systems (Sallwey et al., 2019; Elkhrachy et al., 2023).

1.1 Objectives

- To evolve an adaptable model for professional art software selection that uses multiple criteria and dynamic weighting schemes.
- To validate the practical application of the suggested method by case studies and simulation experiments, thus emphasising its flexibility to various user needs.
- To explore the benefits and obstacles of the dynamic decision-making techniques vis-à-vis the static evaluation approaches, gathering data necessary for future research and development.

The current objectives of the study will create new knowledge about decision-making algorithms and their use in the creative industry. The results of this research will have mainly two areas of implications. They are for software developers and creative industry leaders.

Additionally, affecting the chosen software in a user-centred and adaptable way would be the mainline for such processes. Also, the methodology proposed in this research can be a basis for future studies that focus on AI and ML integration in dynamic decision-making systems (Ali et al., 2023; Lessa et al., 2024).

In summary, the decision to select proper art software is critical for users as it influences their creativity, productivity, and satisfaction. The complexities of this determination highlight the inadequacy of conventional models and the necessity of alternative ways that include multivariable decision problems. Advanced models and dynamic decision trees are examples of such methods (Popescu et al., 2022).

This paper expresses the desire for improvements in the understanding of those algorithms and their various practical uses, coupled with possible input into works of art allowing advanced people to require professional responses. Through case studies, an investigation considering users' preferences added to the existing literature, and the suggested approach should be our deliverables bridging academia and the business world, which is the improvement of selection processes through professional art software.

2 Literature review

The decision-making process of selecting suitable professional art software is a complex problem that has attracted the attention of researchers in the past few years. Various methods have been suggested, tested, and implemented for the evaluation and selection of different software solutions. For example, auto-generated personalised recommendation systems powered by artificial intelligence, MCDA, and hybrid decision-making processes can be mentioned, which were systematically analysed in the literature to improve the outcome for users in terms of reliability as well as personalisation (Laping et al., 2023; Cammerino et al., 2023). In the current chapter, we focus on two parts, one is the exhaustive literature review, and the second part, majorly is on the studies that for software selection employed dynamic algorithms, adaptive methodologies, and decision-support frameworks. We see in all these studies the evolution of decision-making strategies and the impact they have on the creative sector.

Pico-Saltos et al. (2021) did a bibliometric analysis to see how the subject of professional success evolved from 1990 until 2020. They used Scopus-indexed publications for the study through an elaborate bibliometric process which went along the lines of criteria selection, database filtering, and software-based analysis. The analysis resulted in the identification of the main human resources' building blocks and also an overview of co-citation and co-occurrence maps which had divergence and convergence indicatives. The study came out with the conclusion that the research on professional success is inherently growing but also the area includes a wide range of scholarly interests and points of view.

Chiarani et al. (2023) did the core electricity power development site selection for concentrated solar power plants in Brazil by taking up a MCDA approach with the help of geographic information systems (GIS). They have developed a free software-based model that utilised siting criteria like geospatial database, criteria experts have weighted them, and validation with AHP, VIKOR, and TOPSIS methodologies. The results were satisfactory that CSP has high potential in Northeast, Central-west and Southeast Brazil, and further, the framework made it easy for the decision makers to select suitable sites for renewable energy projects in China.

Psomas et al. (2021) have come up with a unique system of water management in the agricultural sector applied to river basins. They established the environmental analysis through the driving forces-pressures-state-impacts-responses (DPSIR) model with the water-energy-land-food (WELF) nexus approach and also the MCDA processes were combined. Subsequently, a multi-attribute value/utility method was applied in the assessment of marginal values associated with the decision criteria, and this was followed by the prioritisation of the criteria via the novel weight assessment method (WAP). The research was executed on the Pinios River basin, Greece, where it showed the use of

structured decision support systems was capable of better water resource management while taking into account the trade-offs among environment conditions.

Arca and Citiroglu (2022) have investigated the process of selecting locations for wind power plants in Kozlu, Turkey, using GIS-based MCDA techniques combined with ArcGIS 10.2 software. Geographical factors were examined in this research for establishing the best locations for the wind turbines. This indicated that the area adopted was confirmed to have mild and moderate levels of susceptibility. The results underscored the significance of an extensive investigation on the wind energy capabilities of sites and ecological obstacles they might face which will finally result in an optimal energy generation.

As methods evolved, researchers also began addressing decision making under uncertainty using fuzzy MCDA techniques. Więckowski et al. (2022) created a Python-based software library named PyFDM which is intended for fuzzy multi-criteria decision making in uncertain circumstances. Whereas the weak points of the given methods were improved and the old ones were abandoned PyFDM became an enhancement to the previous ones as a versatile information system. Stock selection and an EvalERP process were the two key case studies undertaken for the Library Test, where the attention was directed to the nature of the tasks, and the solution strategy was changed accordingly. The structure of a particular dynamic and organic system is such that it allows the substitution of modules granting the system the maximum flexibility as a decision-making aid.

Kougkoulos et al. (2018) proposed an MCDA framework for evaluating GLOF risk in glacial regions. Their model used data sources that are widely available in order to rank the lakes based on the potential hazard in their populations taking into account 13 risk criteria. The application of the model methodology was exemplified by the three glacial lakes in the Bolivian Andes possessing medium to high risk called for further investigation. Finally, the model was verified to be robust by the sensitivity analysis thus showing that it is applicable in areas of the world where no specific GLOF risk analysis has been carried out.

In the framework proposed by Popescu et al. (2022), considerations for environmental sustainability were introduced to improve digital twin solutions in manufacturing. The research identified the key features necessary for sustainable digital twins through the MoSCoW method and MCDA, using the results of a focus group of production experts. The study emphasised that environmental functions are inadequately represented in current digital twin solutions and stressed the need for the development of tailored tools for sustaining industrial processes.

In the study led by Achillas et al. (2015), a decision-making framework made use of both a multi-criteria decision aid and a data envelopment analysis (DEA) so that the best production strategies in additive manufacturing (AM) could be chosen. The study investigated the performance and benefits of selected AM technologies in comparison to conventional methods like injection moulding and CNC machining. Criteria such as cost, lead time, and quality were assessed. The results indicated that AM applied to the production of security keyboard housings successfully improved responsiveness and customisation for small-scale production in the supply chain as well as positively contributed to conventional mass manufacturing.

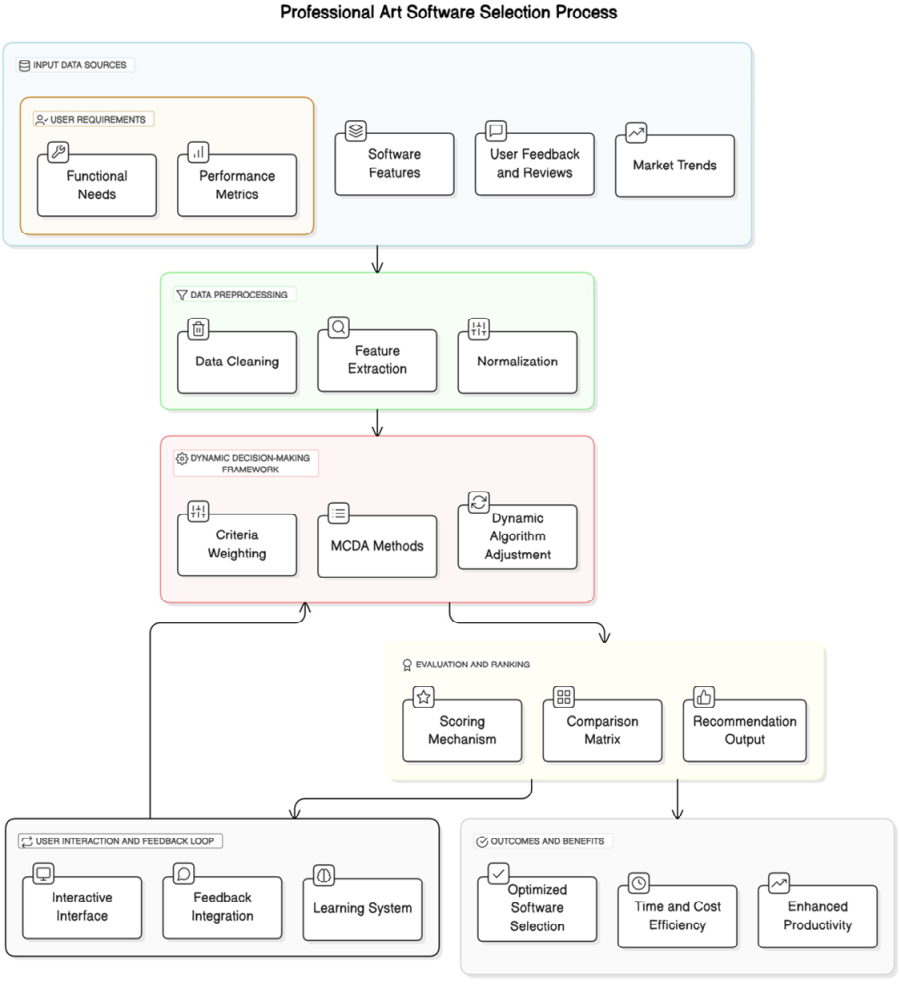
Table 1 Literature comparison

Author(s)	*Study focus*	*Methodology/approach*	*Key findings*
Pico-Saltos et al. (2021)	Bibliometric analysis of professional success research (1990–2020)	Scopus-indexed publications, co-citation and co-occurrence maps	Identified eight main research themes and exponential growth in professional success research, highlighting patterns of convergence and divergence.
Chiarani et al. (2023)	Optimal site selection for CSP plants in Brazil	GIS-based MCDA with AHP, VIKOR, and TOPSIS methods	Found high viability for CSP in Northeast, Central-west, and Southeast regions of Brazil, offering a replicable decision-making workflow.
Psomas et al. (2021)	Decision-making for agricultural water management in river basins	DPSIR and WELF nexus models integrated with MCDA	Demonstrated structured decision-support for optimising water resource management, applied in Greece's Pinios River Basin.
Arca and Citiroglu (2022)	Site selection for wind power plants in Kozlu, Turkey	GIS-based MCDA and ArcGIS 10.2	Determined optimal locations for wind turbines based on geographical factors, with low to medium sensitivity levels identified in the study area.
Więckowski et al. (2022)	Development of PyFDM for fuzzy decision-making	Python-based fuzzy MCDA tools	Demonstrated effectiveness in stock selection and ERP evaluation; modular architecture allows adaptable decision-making in uncertain environments.
Kougkoulos et al. (2018)	Risk assessment for glacial lake outburst floods (GLOFs)	Desk-based MCDA using 13 risk criteria	Identified medium to high-risk lakes in Bolivia; sensitivity analysis validated the robustness of the MCDA model.
Popescu et al. (2022)	Enhancing digital twins with environmental considerations	MoSCoW method and MCDA integrated with TRIZ	Highlighted poor implementation of environmental functions in digital twins; called for tools supporting sustainability in industrial processes.
Achillas et al. (2015)	Decision-making for additive manufacturing (AM) versus traditional methods	MCDA combined with DEA	AM improves supply chain responsiveness and customisation for small production while complementing traditional mass production systems like injection moulding.

3 Methodology

The employed methodology in this research shows a systematic and structured approach to professionals selecting art software using dynamic decision-making algorithms. The process encompasses user-centric principles, multi-criteria evaluation techniques, and adaptive mechanisms to provide a solid and efficient decision-making platform. The flexibility, real-time adaptability and comprehensive evaluation of software options proposed by this methodology aim to address the various needs of users in the creative industry. This section describes the various stages of the methodology, explaining how data is collected, processed, and used to produce meaningful recommendations. Figure 1 provides a graphical representation of the proposed model, thus ensuring a clear depiction of its components and the workflow.

Figure 1 Proposed model diagram (see online version for colours)



3.1 Input data sources

The methodology's foundations are diverse data sources that cover all aspects of software evaluation. The main sources are grouped into four main categories: functional needs, performance metrics, software features, and user feedback and reviews. Besides, it is appropriate to consider the market trends which will allow for the selection process to be based on the most recent developments in the industry.

Functional needs are represented by the individual requirements of users, e.g., the requirement of 3D modelling tools, advanced photo editing capabilities, or the support of cross-platform technologies. Performance metrics include quantitative measures like processing speed, resource consumption, and software reliability. Software features are composed of the technical attributes of the technology such as layering capabilities, its support for various file formats, and the AI-assisted functionalities that were made available. User feedback and reviews afford qualitative insights representing the real-world experiences of existing users. As for the market trends, they contribute an external perspective, factoring in issues like technological advancements, emerging tools, and competitive dynamics present in the software landscape.

3.2 Data preprocessing

Through preprocessing the accuracy, consistency, and compatibility of the data that is to be utilised in the decision-making process are ensured. The first stage of the data preprocessing process is data cleaning, the second will be feature extraction, and the third is normalisation.

The exclusion of irrelevant data helps to maintain the quality of the evaluation process. The most critical features affecting the user decision are identified by feature extraction. For example, in the framing up of professional art software, things that were extracted from the latter could be the speed of rendering, ease of UI interaction, or even the availability of AI tools. Normalisation means converting all the different formats and scales into one standard way to make it easier to compare different software options generally.

3.3 Dynamic decision-making framework

The major component of the methodology is the adaptive decision-making model, which consists of a combination of MCDA methods and weighting mechanisms that adapt to the situation. The developed framework confronts the weaknesses of classic static evaluation models so that it can react to the changing user needs and contextual factors.

Relatively important factors are given based on user preferences at first. For example, the animator may select the rendering capability, and the graphic designer may select the vector editing tools. The framework's adaptability allows users to change the weights in a dynamic way, which helps the evaluation not to be affected by the changes in their requirements.

MCDA techniques are then used to evaluate software options according to the weighted criteria. The analytical hierarchy process (AHP) and the technique for order preference by similarity to ideal solution (TOPSIS) methods are employed to provide a detailed ranking of available tools. The application of mentioned techniques makes way

for the systematic collection and comparison of multi-dimensional data, which is the essence of the well-informed decision-making process.

To boost flexibility further, the framework comprises an automatic adjustment of algorithms, which keeps on improving the evaluation process as a result of the constant user feedback and situations that are changing around it. If, for example, a user expresses a problem with the suggested software, the algorithm will determine the importance of the criteria and modify the questioning accordingly, to find more appropriate recommendations. This feedback cycle helps to ensure that the framework stays relevant and right on target with the users.

3.4 Evaluation and ranking

At the evaluation and ranking phase, where the decision-making framework processes the data, the actionable recommendations are derived. This stage uses three main tools: the scoring model, a comparison table, and the recommendation output.

The scoring model allocates the point scores to all software options depending on how they score against the weighted criteria. Those scores are in turn presented in a comparison matrix, which provides a visual representation of the comparison of the strengths and weaknesses of each alternative. Lastly, the recommendation output provides the user with the best software alternatives, along with thorough explanations and insights.

The evaluation and ranking stage is aimed at providing transparency and clarity, thus making users obviate the reasons for the recommendations. In addition, the system also lays out potential trade-offs such as cost versus functionality, which will help users make informed decisions that involve their priorities.

3.5 User interaction and feedback loop

The proposed methodology is chiefly about the inclusion of a user interaction and feedback loop which provides omnipresent improvements and flexibility. Three key components that are in the loop are: an interactive interface, feedback integration, and a learning system.

The direct interactivity of the users works here as the main media to interact with the system through which they get to input their choices, adjust the criteria weights, and view the results of the recommendations. Capturing user responses such as feedback, satisfaction ratings, and suggestions for improvements is what feedback integration does and this information is included in the decision-making process. This feedback, as a result, is used to adjust the learning system and fine-tune the algorithm so that the next recommendations will be as close as possible to the user's expectations.

By using user interaction as a priority, the methodology thus introduces a collaborative method to software selection getting users to be an active part of the decision-making process. The iterative loop is not only beneficial for the accuracy of the recommendations but it also ensures the users' trust in the system and their confidence in it.

3.6 Outcomes and benefits

The suggested methodology bears a numerous amount of pragmatic benefits, one of which is the optimised software selection process, saving time and money, and thus improving productivity. The high adaptability of the framework assures that the software recommendations will be up-to-date with the changes in user requirements and trends in the industry. Productivity was enhanced by customising the software capabilities to users' needs which enabled creative professionals to be able to concentrate on their work instead of being restrained by technical issues.

3.7 Working of the proposed model

The working of the proposed model, as depicted in Figure 1, illustrates clearly how each section of the algorithm works from input to data sources to outcomes and benefits. The process begins with the gathering of data which encompasses user requirements, software features, and market trends. Thereafter the data gets preprocessed through a system of cleaning, feature extraction, and normalisation to ensure consistency and accuracy.

The core dynamic decision-making framework involves methodologies like the use of weighting for criteria, multi-criteria decision analysis, and the adjustment of dynamic algorithms which are giving priority to the evaluation and quantitative analysis of software options in this case. The scoring system and comparison matrix are establishment methods that ensure a thorough evaluation, while the recommendation output delivers practical assistance to the end user. Finally, the user interaction and feedback loop serve to enhance the product continuously, refining the recommendations based on user input.

These elements working together form the basis of the suggested model which is a comprehensive and adaptable approach to the professional art software selection process. The dynamic algorithms combined with multi-criteria evaluation methods as well as user feedback are going to be the foundation of the approach being on the one hand customisable and, on the other hand, the one being able to tackle the complexities of the creative industry. This initiative is aligned with the link between the development of theory and its application in practice while at the same time, it presents a framework for making decisions that emerge in the technological field which is under rapid development.

4 Results and discussion

The professional art software evaluation was carried out with the use of the AI-Generated Art Trends Dataset. This dataset recorded essential parameters such as usability, performance, features, price, and the total overall score of each program. The results, which are illustrated in table and graph format, indicate the strengths and weaknesses of the selected programs, and the efficiency of the proposed dynamic decision-making model was shown.

4.1 Results overview

The dataset includes five professional art software options: ArtStudio, ProCreate, Adobe Illustrator, Blender and Corel Painter. Each software was assessed across multiple dimensions, with scores assigned based on a weighted evaluation using MCDA techniques. The aggregated overall scores, presented in Table 2, provide a comparative ranking of the software options.

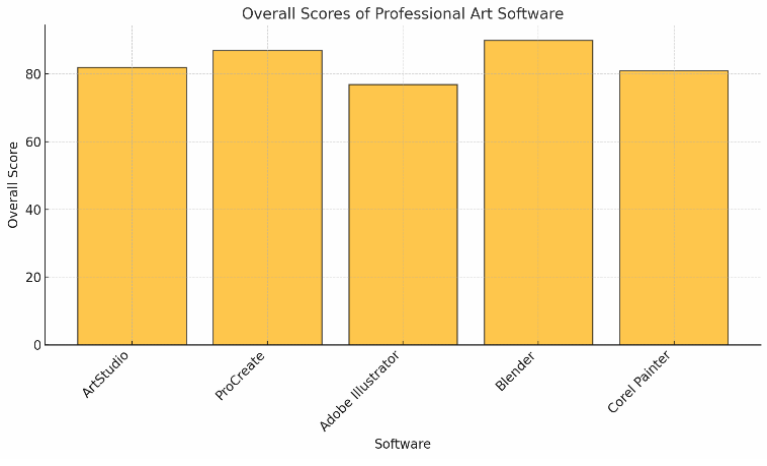
Table 2 Multi-criteria scores of art software using MCDA

Software	*Usability score*	*Performance score*	*Feature score*	*Cost efficiency score*	*Overall score*
ArtStudio	85	80	88	75	82
ProCreate	90	85	92	80	87
Adobe Illustrator	78	75	85	70	77
Blender	88	90	95	85	90
Corel Painter	80	82	83	78	81

4.2 Graphical representation of results

Overall performance scores of individual software packages can be visually analysed through Figure 2. The resulting score shows that Blender has a clear edge over other software with a very high score of 90, while the result for ProCreate happened to be the second one in achieving an excellent overall score of 87. The results suggest that Blender is indeed the best choice in the design process, particularly in the crucial parts of usability and cost efficiency.

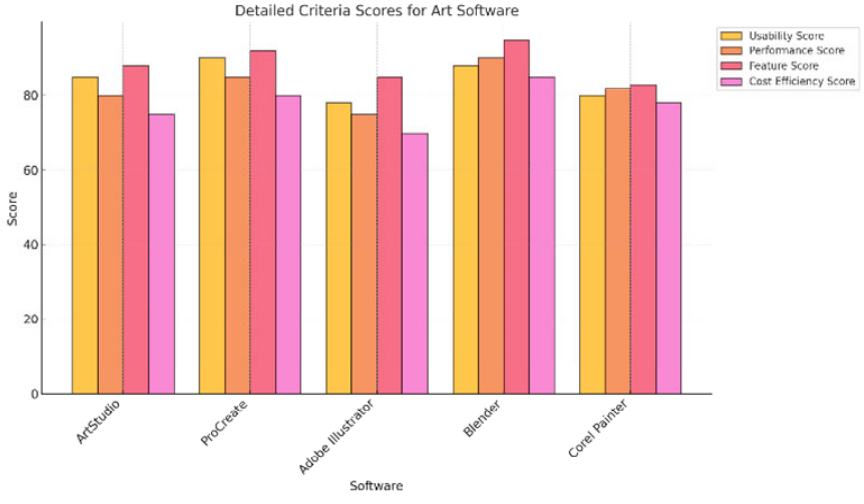
Figure 2 Overall evaluation scores of professional art software (see online version for colours)



In addition, Figure 3, which also lists the results for each piece of software with criteria of usability, performance, features, and cost efficiency, presents a graphic showing the overall picture of the software being evaluated. This representation shows the strengths and weaknesses of each software package. For example, ProCreate produces the best

usability score of 90, while Blender's performance features title was the highest (95) followed by the performance result at 90. Although Illustrator is equipped with features that are not present in other software the best tool was. It is known that Adobe is well below the cost and overall performance of the other software.

Figure 3 Breakdown of evaluation criteria scores by software option (see online version for colours)



4.3 Discussion of findings

The outcome of this study revealed the effectiveness of systems that can make dynamic decisions since they can conduct software assessments based on multidimensional criteria that meet the aspirations of professional and creative people. The high scores achieved by Blender reveal that it is excellent in bringing forth advanced features and affordable and effective costs, thus it is very well-suited for consumers who want a complete and thorough package like this. However, its usability score (88) indicates that some users may find the learning curve challenging, especially those who are new to 3D modelling and animation software.

The good performance of ProCreate in the usability and features categories points out that it is a competent tool for illustrators and graphic designers. It is simple-to-use interface and advanced digital painting tools have secured ProCreate as the most preferred option for creative professionals who put simplicity and ease of use as their top priority. Some users who are low-budget-minded may opt for other options because the score of its cost-effectiveness in the survey is lower (80) albeit slightly.

ArtStudio and Corel Painter have acquired excellent scores across all categories, but they have not particularly excelled in a particular area. These results reveal that these software options are appropriate for general-purpose use, serving users whose criteria across all domains are moderate. Adobe Illustrator, on the other hand, was on the whole the strongest functionally but also the least cost-efficient, as it was Adobe Illustrator was the most expensive option, making it the least cost-efficient among the software reviewed.

The framework is intuitive to use since it has correctly captured the subtleties of these software tools and is a comprehensive examination tool that aligns with user priorities. By having the criteria weights different depending dynamically on the user's needs, the framework will retain its relevance to the different needs of users. For example, an illustrator who favours usability and functions would likely choose ProCreate while a 3D animator who is interested in performance and cost-effectiveness might choose Blender.

4.4 Implications of results

The findings have serious implications for software developers, organisations, and individual users. Developers can benefit from these discoveries by dealing with certain user concerns, such as improving Blender's ease of use or enhancing Adobe Illustrator's cost-efficiency progress. The companies that use the framework can also ensure the improvement of the software selection processes, the reduction of costs, and the growth of productivity. The individual users of such software will have tailored recommendations that will fit their creative activities and their budgetary constraints.

The findings further underline the significance of constant feedback and versatility in decision-making frameworks. The incorporation of user feedback into the framework makes sure that the suggestions will shift and evolve according to the new demands thus increasing its reliability and usefulness.

In the end, the results confirm the capability of the new dynamic decision-making methodology to successfully evaluate the professional art software. The visual and tabular analyses are transparent and user-friendly comparison points for the different software options thus assisting the users with informed decisions that can meet their different creative needs.

5 Conclusions

This study has presented a new way of looking at the professional art software selection process using dynamic decision-making algorithms. The combination of multi-criteria decision analysis (MCDA) through its various methodologies which incorporate adaptive mechanisms, make it quite the innovative and reliable way to evaluate software options based on usability, performance, features, and cost efficiency, as the results of the study demonstrate. The results from the AI-Generated Art Trends Dataset demonstrate that the top-performing software is Blender with a final score of 90 while ProCreate followed closely with a score of 87. Blender was the best in features and cost efficiency therefore it was for advanced users while ProCreate was the best choice as an easily manageable tool for illustrators and designers. These results validate the framework's capability to meet user priorities by giving personalised and precise recommendations for software selection considering the peculiarities of the creative industry.

Although the new framework showed good results, however, there are some limitations attached to it. The investigation relied on a narrow dataset and also a few fixed evaluation criteria, and this may not be enough to fully represent the diversity of the users' needs for different creative domains. Furthermore, the dynamic changes that the framework has to make based on the user feedback are another factor that could create inconsistency in the results such that when such feedback is not uniform, sparse data or inconsistent inputs are also present one could expect exact variability in the outcomes.

Future investigations could focus on broadening the dataset, adding other parameters like long-term user satisfaction and new technology to increase the adaptability and the strength, the decision-making framework, and also the use of AI-based predictive analytics to improve image selection processes will be assessed.

Declarations

The author declares that he has no conflicts of interest.

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