THE 3KAT APPROACH: TRANSFORMING SELLING COSTS AND PRICES DETERMINATION CAPABILITY

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Abstract: *Governing the correct cost and price is paramount in business management but is often neglected and causes the business to go bankrupt. The Click Cost Cash Flow Calculator (3KAT) is a mobile access application designed and developed for cost, price determination, and business cash flow preparation. The 3KAT project is an application dedicated to aiding enterprises in quickly and easily calculating expenses and determining selling prices. 3KAT was developed to micro-entrepreneurs, overcome financial and accounting issues and to provide a solution for them to easily record their business transactions and all the costs associated with the production of their products to determine the correct selling price. Product costs and prices, as well as cash flow, can be generated automatically, removing the need for manual computation or writing on paper, both of which are prone to loss. If the cost of business supplies and expenses fluctuates, it can be used frequently to determine costs and prices. Additionally, receipt and expense reports can be generated at a time of your choosing. 3KAT was built with an AppSheet app based on the ADDIE model that includes 5 phases which is the analysis phase, design, development, implementation, and evaluation phase. The 3KAT gives value-added competency to entrepreneurs in the costing and pricing process which impacts acceptance, adjective, grade, percentile rank, and promoter and detractor in the evaluation of System Usability Scale (SUS) score. The implications of this study show that the adoption of the 3KAT mobile application provides positive potential from the aspect of usability and its use on users with an average SUS score of 81.5 by 60 micro-entrepreneurs. Thus, 3KAT is able to give great impact and benefits to users who are involved in business, especially those who do not have an accounting background.*

Keywords: *cost and price, 3KAT application, system usability scale*

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Introduction

Effectively managing costs and prices is crucial for business management; nonetheless, it is frequently disregarded, which leads to a business's collapse (Fatoki, 2017). Reliable financial data is essential for businesses, especially young and micro-entrepreneurs, to make critical financial decisions including hiring more personnel, opening new branches, investing in new equipment and supplies, and getting bank finance. Problems arise when accurate cost and profit projections are questioned when the necessary data is difficult to provide and obtain, especially in complex financial and accounting systems. The truth is that a lot of entrepreneurs still don't understand the difference between revenue and profit. Owners of micro, small, and medium-sized businesses are seen to be the easiest to incorporate into accounting software and are more likely to report daily sales. They therefore anticipate getting their daily paycheck and believe it to be an indication of their daily profit (Ghaffar, Lehat, & Abd Rahman, 2024; Nuryakin, Sutadji, & Djamhuri, 2021).

It is a surprise to many business owners that over time, errors have crept into their financial records (Ghaffar, Lehat, & Abd Rahman, 2024). One of the problems is complicated accounting software that is hard to understand. The company won't last for very long, even if it claims to be lucrative. The business owner or entrepreneur will have to use their own funds or take out loans for a considerable amount of time in order to maintain their enterprise. Additionally, profits seem nonexistent.

Last but not least, novice business owners must comprehend the significance of precisely gathering and preserving financial data. They need to quickly analyze the financial data if they want to ensure the long-term viability of their company. To ensure that their products' selling prices stay competitive, entrepreneurs need to evaluate their costs and expenses in response to price increases. Moreover, it is usually not possible for micro-entrepreneurs to engage accountants who can guarantee accurate data entry and financial transactions. Certainly, such basic software can help them comprehend the principles of pricing, costing, and cash flow recording. Consequently, to close the gaps in these fledgling enterprises' ability to reliably and conveniently capture transactions, this 3KAT was developed.

A mobile access application called Click Cost Cash Flow Calculator (3KAT) was created to assist businesses in preparing their cash flow and determining costs and prices. The 3KAT project is an application designed to help businesses figure out selling prices and expenses quickly and simply. To support micro-entrepreneurs overcome their financial and accounting challenges, 3KAT was created. It offers a solution that makes it simple for them to keep track of all the expenses related to their product manufacturing as well as business transactions, allowing them to calculate the appropriate selling price. Cash flow, product costs, and prices can all be produced automatically, doing away with the need for labor-intensive calculations by hand or handwritten notes—both of which are prone to error. It can be used regularly to establish prices and costs if the cost of business supplies and expenses varies. Furthermore, you can schedule the generation of receipts and cost reports. Therefore, the study's objective of 3KAT are to identify the usability of 3KAT adoption in terms of acceptance, adjective, grade, percentile rank, and promoter and detractor using the System Usability Scale (SUS) score and recognize the impact of 3KAT employment.

Method & Material

This 3KAT project was designed and developed with an AppSheet app based on the ADDIE instructional design model to ensure that this project is systematically developed from creating an idea to producing the 3KAT application. ADDIE model (Gagne, Wager, Golad, & Kaller, 2005) is a systematic approach to a learning model that instructional designers and training developers familiarly use in developing effective ideas in a learning-based environment (Budoya, Kissake, & Mtebe, 2019). It is also one of the instructional design models that serves as the foundation for other instructional design models (Harun & Tasir, 2003). Figure 1 shows the ADDIE Model consists of five steps: analysis, design, development, implementation, and evaluation.

In the analysis phase, the requirements and situation of this project were analysed, and understand the gaps that the project needs to fill up. This phase is most important to identify the objectives and goals of the project. After completing the possible requirements needed and information, the design phase is implemented based on the findings in the analysis phase to design the best possibility for the project experience. The next phase is the development phase which is required to create the development of the product, validate, and do a pilot testing before implementing the product with the target user. In the implementation phase, the product is tested by the target user to identify all the features that work as designed and identify the part in need of improvement based on the feedback from the user. The last is an evaluation phase that needs to carry out the improvement and back to the analysis phase if any problem with the product.
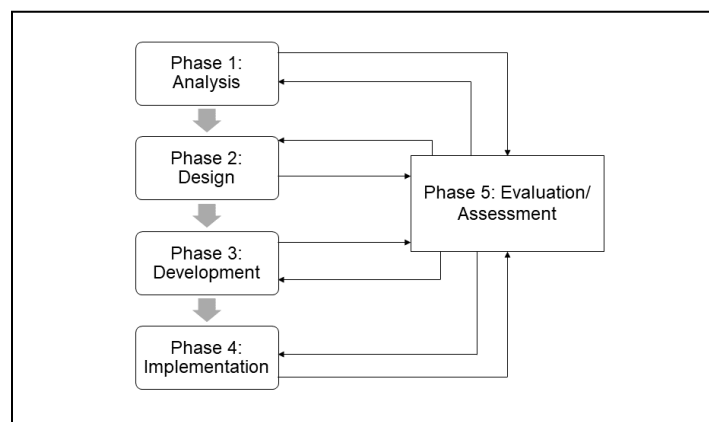

Figure 1: ADDIE Model (Gagne, Wager, Golad, & Kaller, 2005)

Interface Design

3KAT is built with an AppSheet app based on the ADDIE model. The 3KAT application simplifies the process of calculating costs, determining sales prices and recording cash flow with 6 main menus: 1) Cash Flow, 2) Receipts, 3) Expenses, 4) Cost Calculator, 5) Reports and 6) Info. Figure 2 shows the 3KAT interface. Cash Flow menu to register or update cash flow transactions that are cash and bank receipts and expenses. Receipts menu to display all receipts recorded cumulatively in cash or bank. Expenses menu to display all expenses recorded cumulatively in cash or bank. The Cost Calculator menu functions as a product cost calculation. The Report menu acts to generate a report in the form of a PDF printout for receipts and expenses according to the desired start and end dates and a list of cash flows. The Info menu provides information related to the use of 3KAT including the user manual.
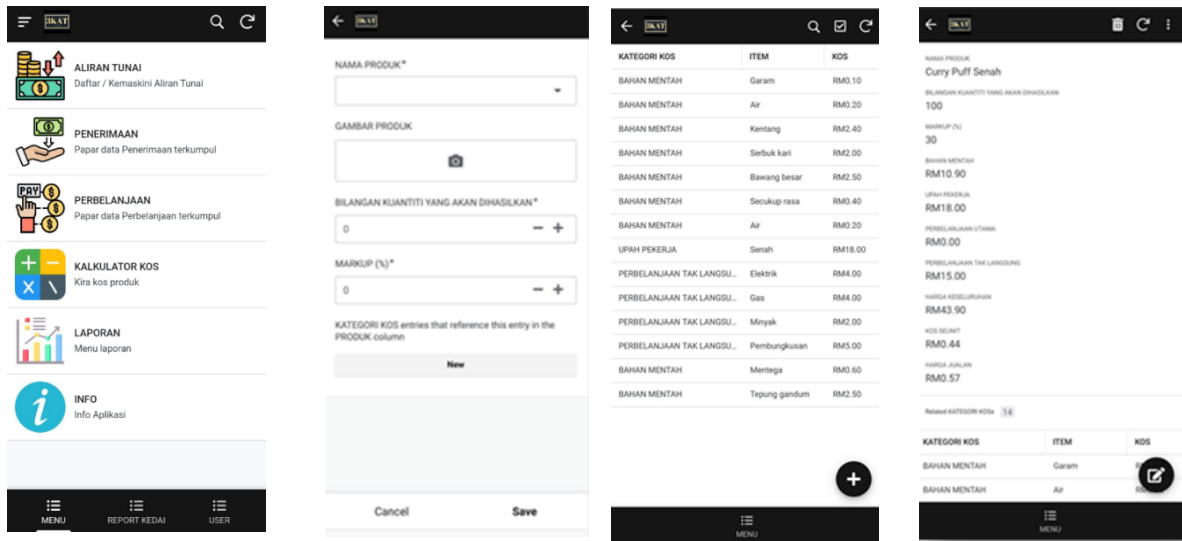
Figure 2: 3KAT (Copyright Registration Number: CRLY2023W01145) Interface

Using 3KAT or Click Cost Cash Flow Calculator is very easy. Users only need to enter the items that are involved and needed only such as the list and price of shopping (money issued) and results received (money coming in). Costs, product prices, and cash flows can be stored and generated automatically without the need for manual calculations or writing on paper that has the potential to be lost. Cash flow reports can also be generated at any time. The 3KAT application can be used repeatedly for cost and price calculations or new expenses. This application needs to be registered and uploaded on a smartphone and can be used through an internet browser. The 3KAT application provides an "About" display that gives an overall picture of this application. 3KAT also comes with a user manual. In addition, 3KAT possesses the following characteristics: usability, acceptance, adoption, simplification, value, affordability, practicability, and cost-effectiveness.

Micro-entrepreneurs especially need applications like this to facilitate their business finances and ensure that the business continues to thrive and be competitive. Students who take courses related to business and entrepreneurship also benefit from this application because they have to run a business during the implementation of the course. 3KAT can also be used by instructors involved in business and entrepreneurship courses as teaching aids in the teaching and learning process (T&L) for more effective teaching and learning process especially those not from an accounting background. 3KAT has a great impact and benefit to various groups involved in business with an affordable cost because of its very important function in a business and prevent the business from going out of business.

Usability Measurement

The scoring rubric is a tool used to evaluate and assign points to each response in the questionnaire. This ensures consistency and objectivity in the scoring process. The rubric will outline the criteria for scoring and specify the point values assigned to each criterion. It is important to note that the rubric should be created beforehand and shared with the scorers, providing them with clear instructions on how to assess each response. This will help to minimize subjectivity and bias in the scoring process. The rubric sets clear criteria for scoring and assigns specific point values to each criterion, ensuring a fair and standardized assessment (Lestari & Restuningdiah, 2021).

According to Nasyiah, Kelana, & Riskinato (2024), user experience (UX) is one of the importance factors when it comes to developing a system. The user motivation will be derived when the user experience is at satisfaction level. They will be encouraged to use the system if it is useful and the user experience is great (Følstad & Skjuve, 2019). System Usability Scale (SUS) is often employed technique for evaluating the perceived usefulness of a system, good, or service. It produces a measurable indicator known as the SUS score, which is a scale from 0 to 100 that provides details on general usability and customer happiness. While a lower score suggests potential usability problems, a higher number indicates increased usability.

Currently, there are over twenty different versions of the SUS questionnaire. Keeping track of their provenance, legitimacy, dependability, and toolkit compatibility becomes difficult as a result. As a result, the SUS Analysis Toolkit also comes with an open-source SUS PDF generator. It can be used to create interactive SUS PDF questionnaires with customization options, such as using product names as the variable, for more than 18 distinct versions, variations, and languages (Blattgerste, Behrends, & Pfeiffer, 2022). SUS use 5-point likert scale from strongly disagree until strongly agree. Table 1 shows the questionnaire used for testing the usability on 3KAT application (Bhat, 2024). There are ten (10) items apply for the testing to acquire the SUS score.

Table 1: SUS Questionnaire

No	Statement
1	I like to use 3KAT more often.
2	I find 3KAT to be more complicated than it should be.
3	I think 3KAT is simple and easy to use.
4	I need technical support to use 3KAT.
5	I find 3KAT functioning smoothly and is well-integrated.
6	I think there are a lot of irregularities in 3KAT.
7	I think most people can learn to use 3KAT quickly.
8	I find 3KAT to be time-consuming.
9	I feel confident while using 3KAT.
10	I think there are a lot of things to learn before I can start using 3KAT.

Findings
Since all of the questions with odd numbers have a positive tenor, answering "strongly agree" will award the maximum score (10) for each question. Strong disagreement will result in the lowest possible point of 0. It will guarantee that the minimum is 0 by deducting 1 from each odd-number question. Next, multiply each answer by 2.5 to make sure the total for each question is no more than 10. Conversely, in the case of even-numbered negative-toned questions, a strong agreement response will result in the lowest point value of 0 for each question. The strong agreement will result in the lowest possible point of 0. Thus, it will guarantee that the minimum is 0 by deducting the point value for each question from 5. Next, multiply each answer by 2.5 to make sure the total for each question is no more than 10.

| Average SUS Score | |
SUS Questionnaire	SUS Score
Question 1	80
Question 2	87.5
Question 3	90
Question 4	77.5
Question 5	82.5
Question 6	80
Question 7	75
Question 8	77.5
Question 9	85
Question 10	80
Average SUS Score	**81.5**

Table 2 shows the average SUS Score from 60 respondents according to ten (10) items among micro-entrepreneurs who participated in answering the questionnaire. The average SUS Score of the respondents is 81.5 from ten (10) items. Question 1: "I like to use 3KAT more often" has a SUS score of 80. Question 2: "I find 3KAT to be more complicated than it should be" has a SUS score of 87.5. The third question "I find 3KAT to be more complicated than it should be" has a SUS score of 90. Question 4, "I need technical support to use 3KAT " has a SUS score of 77.5. Question 5, "I find 3KAT functioning smoothly and is well-integrated" received a SUS score of 82.5. Question 6, "I think there are a lot of irregularities in 3KAT " earned a SUS score of 80. Question 7, "I think most people can learn to use 3KAT quickly" achieved a SUS score of 75. Question 8, "I find 3KAT to be time-consuming" obtained a SUS score of 77.5. Question 9 that "I find 3KAT to be time-consuming" was given a SUS score of 77.5. For the last Question 10 "I think there are a lot of things to learn before I can start using 3KAT", the SUS score is 80.

Discussion
Interpreting the SUS score computation results into the score scale is the next step. There are five methods for doing interpretation (Sauro, 2018). The five techniques are acceptance, adjective, grade, percentile rank, and promoters and detractors as illustrated in Figure 3 and explained in Table 3. The Table 3 provides the values from the graphic in Figure 3.
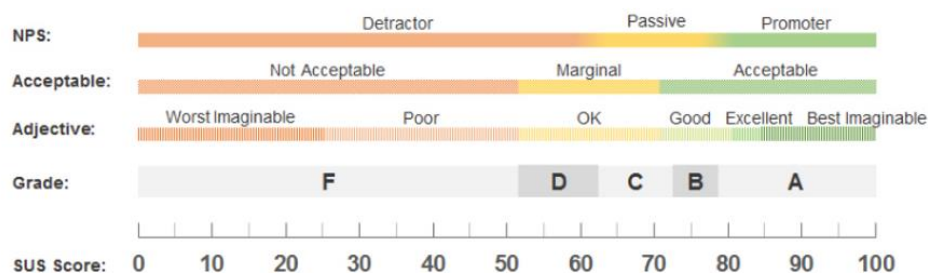

Figure 3: Percentiles, Grades, Adjectives, and NPS Categories to Describe Raw SUS Scores (Sauro, 2018).

Table 3: The values for Percentiles, Grades, Adjectives, and NPS Categories (Sauro, 2018).

Grade	SUS	Percentile range	Adjective	Acceptable	NPS
A+	84.1 – 100	96 – 100	Best Imaginable	Acceptable	Promoter
A	80.8 – 84.0	90 – 95	Excellent	Acceptable	Promoter
A-	78.9 – 80.7	85 – 89		Acceptable	Promoter
B+	77.2 – 78.8	80 – 84		Acceptable	Passive
B	74.1 – 77.1	70 – 79		Acceptable	Passive
B-	72.6 – 74.0	65 - 69		Acceptable	Passive
C+	71.1 – 72.5	60 – 64	Good	Acceptable	Passive
C	65.0 - 71.0	41 – 59		Marginal	Passive
C-	62.7 – 64.9	35 – 40		Marginal	Passive
D	51.7 – 62.6	15 – 34	OK	Marginal	Detractor

Acceptance

Another approach to describing the SUS is to consider what is deemed "acceptable" or "not acceptable." These phrases were used by Bangor, Kortum, & Miller (2008) to indicate situations in which the SUS was significantly above or below normal. About 70 is considered appropriate (above our average of 68), and 50 is considered unacceptable. From the findings, the participants score 81.5 which is above average, and this means that the 3KAT is acceptable by the participants to be used in the future.

Adjective

Expanding on the notion of describing an experience with words rather than statistics, Adjectives like "Good," "OK," and "Poor" are included in the scale; these are terms that people tangentially relate to a product's usability. For instance, they discovered that scores greater than 85 are linked to "Excellent." "Good" scores were 51, slightly above average, and "OK" scores were 51. It can be concluded that the 3KAT is classified under Excellent indicators. The participants felt that they can rely on the application to ensure the accurate selling cost and price for their business.

Grade

The grades go from A, signifying excellent performance, to F, indicating failing performance, with C representing "average." The score A must be above 80.8. The findings shows that 81.5 average SUS score is in grade A which indicates that the 3KAT is easy and simple to be use.

Percentile Rank

The mean score, situated at the 50th percentile, is 68. This indicates that a raw SUS score above 68 is considered above average, while a score below 68 is deemed below average. The average SUS score is 81.5 which indicates it is more than average. It shows that 3KAT, the user experience is beyond average result.

Promoters and Detractors

In this context, it shows that the participants feel whether they want to promote 3KAT to other user when they are confident with the system. A score of 53 shows Detractor, the score of 70 is

passive and a score of 81 is promoter. The SUS average score is 81.5 which means they are very enthusiastic and want to promote 3KAT to their other colleagues because of the advantages, benefits and usability of 3KAT.

Conclusion

This study emphasized the consequences and usability of utilizing 3KAT (Copyright Registration Number: CRLY2023W01145). 3KAT, which has an average SUS score of 81.5, has proven to be a reliable instrument for businesses intending to calculate costs and selling prices accurately. As such, it is a wise investment for the future of financial management. The study's conclusions demonstrate that using the 3KAT mobile application has advantages for users' usability and utilization. As a result, 3KAT can have a significant positive influence and offer benefits to people engaged in business, particularly those lacking experience in accounting. Subsequent research endeavors should concentrate on gauging user satisfaction with 3KAT and developing 3KAT apps.

Acknowledgments

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