

PM 2

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Introduction

Project proposal refers to every detail of a project that helps stakeholders to gain knowledge about the project (Armenia et al., 2019). This report has included three different project proposals. Along with this, the vision, mission, objectives, and aim of those projects have been illustrated in these proposals for better clarification. It will include as well three financial, and two nonfinancial methods to evaluate the three project proposals and detailed calculations of each selected method. The financial methods used are net present value, return of investment, and payback method. The non-financial methods are checklist model and Multi Weighted Scoring Model. This will influence the decision on which of the projects should be selected and the reason behind that. Equally, an explanation of the advantages and disadvantages of each of the methods used to evaluate the projects will be provided. At the end, a discussion of at least three potential sources of funding for the selected project will be listed and a brief description of them will be undertaken.

Proposal 1

The rapid increase of Internet- based technology is one of the primary motivating factors behind the rapid rise in popularity of apps that are intended for use in smart homes (Korneeva, Olinder and Strielkowski, 2021). The widespread availability of modern technology has resulted in increased levels of comfort, energy efficiency, and safety in living quarters. Because there are not a lot of intelligent home applications that can handle numerous parts of a home all at once, it is necessary to develop them in this sector of the technology industry. Aspects in this context include automation, security, and safety, as well as reduced energy usage, decreased, reduced calculation, and reduced costs. It is essential to take each of these aspects into consideration. Therefore, there is an immediate requirement for advances in technological capabilities.

Mission and Vision

As a result, the proposed research will center on the numerous preventative measures that may be taken to address this problem and enhance the safety of smart home automation systems (Rehman et al.,2022). The suggested system additionally takes advantage of the edge-computing paradigm to store confidential customer data in a private cloud that is in a specific geographic region. This contributes to the solution being more effective and efficient than it would have been otherwise and eases its user's life.

Project Evaluation

The following financial as well as non- financial methods can be chosen for assessing the smart home automated system according to the project proposal offered:

Financial Methods:

1. Net Present Value: NPV might be helpful in determining the planned smart home automation systems in the long-term profitability. In assessing the smart home monitoring system, NPV would take the current value of investment into account, giving outlooks on its long-term viability while considering future cash flows. The accuracy of the NPV result depends on precise cash flow estimates and forecasting the future earnings for a cutting-edge technological project (Fernando, 2023).

For calculating the value of NPV, the following formula is used:

$$NPV = \frac{cash\ flow1}{(1+r)^1} + \frac{cash\ flow2}{(1+r)^2} + \frac{cash\ flow3}{(1+r)^3} + \frac{cash\ flow4}{(1+r)^4} + \frac{cash\ flow5}{(1+r)^5} - investment$$

Initial investment= £5000

Cash flow for the Year 1: £ 5000

Cash flow for the Year 2: £ 500

Cash flow for the Year 3: £ 700

Cash flow for the Year 4: £ 1940

Cash flow for the Year 5: £ 1228

Discount rate = 0.10

By considering all the above information, the value of the NPV is

$$NPV = \frac{-5000}{(1+0.10)^1} + \frac{500}{(1+0.10)^2} + \frac{700}{(1+0.10)^3} + \frac{1940}{(1+0.10)^4} + \frac{1228}{(1+0.10)^5} - 5000$$

NPV= £ 484.92

2. Return on Investment: ROI is crucial for determining how effectively a project generates profits compared to its cost. ROI is easy to compute and can give a clear indication of the financial advantage of the project in relation to its costs, making it easier to compare the project to alternative investment alternatives. ROI does not account for the length of the investment; hence it may not accurately reflect the financial performance of a technological project including smart homes which may have an extended payback period.

¹⁰ ROI can be calculated by the following formula (Vipond, 2023):

$$ROI = \frac{\text{Current value of Investment} - \text{Cost of Investment}}{\text{Cost of Investment}} * 100$$

$$ROI = (484/5000) * 100$$

$$ROI = 9.68\%$$

3. Payback method: A payback strategy is an estimation approach that calculates ²⁶ the length of time needed to recover the initial money invested in a project while taking into account long-term cost-saving advantages (Kagan, 2023).

$$\text{Payback Period} = (\text{Initial Investment} - \text{NPV}) / \text{Annual Cash Flow}$$

$$\text{Payback Period} = (5000 - 484.92) / (500 + 500 + 700 + 1940 + 1228)$$

$$= 0.92 \text{ years}$$

About 1 year

The payback technique aids in determining the project's short-term sustainability by quickly estimating how long it will take to recover the initial expenditure (1 year in the case of the smart home project).

Payback methods overlook financial flows that arise in addition to the payback period, as well as possible advantages of the smart home initiative and long-term profitability.

Non-Financial Methods:

1. Checklist Example: The checklist approach may be used to make sure that crucial components of the smart home system, including security, efficiency of energy along with information privacy are considered.

Matrix for the Checklist model

Criteria	Score
Hardware and Software	5
Installation and Integration	4
Cloud Services	5
Testing and Quality Assurance	3
Financial Analysis	3

Timeline and Milestones	2
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The criteria which are given above have a score from 0 to 5 where 0 represents no compliance and 5 represents the highest adherence level.

The overall assessment can be easily evaluated by adding all the scores.

Total score = 5+4+5+3+3+2

Total score = 22

2. Multi-Weighted Scoring Model: This model can extensively assess the project's general worth and viability by giving weights to variables including security, energy conservation, and cost savings.

Criteria	Weight (0-100)	Score (0-10)	Weighted Score
Technology Advancements	20	8	160
Automation Capability	15	9	135
Security Features	20	9	180
Energy Efficiency	15	7	105
Cost-effectiveness	10	8	80
Edge-computing Implementation	20	9	180
Data Privacy and Confidentiality Measures	20	8	160
Total	100		1000

Proposal 2

The widespread adoption of social media has resulted in the modification of conventional approaches to conducting business (Fraccastoro, Gabrielsson and Pullins, 2021). These shifts may be clearly attributed to the explosive expansion of social media, which has not only had a big effect on society but is also directly responsible for it. There is a rising desire among academics and business experts to perform greater research and analysis in this field, despite the fact that there are multiple studies on social media and entrepreneurship, but they are still in their infancy. Therefore, this project will research how business owners use social media.

Mission and Vision

Business owners use social media for goals other than advertising, such as creating relationships with other professionals, conducting research, and raising cash for their ventures. While most papers focused on what inspires business owners to join the social media revolution, this project's aim is to look at how these business owners were using social media. The results of this will be used for the enhancement of the company's capacity for innovation as well as the improvement in the company's overall performance. It not only throws light on what research has been done in the past but also provides a direction for how such research should be done in the future.

Project Evaluation

The financial and non-financial techniques or the methods for the evaluation based on the project proposal supplied on the influence of social media on business practices are given below:

Financial Methods

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1. Net Present Value: By calculating the current value of anticipated cash flows, NPV may be utilized to assess the project's financial feasibility (Kusuma et al.,2021). It aids in determining if long-term expenses are outweighed by advantages.

The duration value of money is taken into account by NPV giving a precise indication of the project's long-term profitability. It makes it easier to compare the idea to alternative funding possibilities.

Since there are many unknowns and frequently shifting patterns, it can be difficult to make reliable cash flow estimates when assessing the effect of the Internet on company processes.

Initial investment= £20000

1

Cash flow for the Year 1: £ 14000

Cash flow for the Year 2: £ 28000

Cash flow for the Year 3: £ 45000

Cash flow for the Year 4: £ 48000

Cash flow for the Year 5: £ 50000

Discount rate = 0.10

$$NPV = \frac{20000}{(1+r)^1} + \frac{28000}{(1+r)^2} + \frac{45000}{(1+r)^3} + \frac{48000}{(1+r)^4} + \frac{50000}{(1+r)^5} - 20000$$

$$NPV = £133,233$$

2. ROI (Return on Investment)

ROI assesses a project's financial success by weighing investment costs and returns, which clarifies how effectively social media can be used for entrepreneurship. To calculate, the formula for the Return on Investment (ROI) is given below:

$$ROI = (\text{Net Profit} / \text{Initial Investment}) * 100$$

$$ROI = (NPV / \text{Initial Investment}) * 100$$

$$ROI = (£133,233 / 20,000) * 100$$

$$ROI = 666.165\%$$

So, the Return on Investment (ROI) is approximately 666.165%.

ROI is a well-liked way for comparing projects since it is an uncomplicated statistic that is simple to understand and explain to stakeholders.

ROI does not consider the length of the investment, which may be a drawback for initiatives like social media use that might have long-term advantages (Vipond, 2023).

3. Payback method

The payback technique calculates how long it will take to make back the initial expenditure. It indicates the time required for total cash inflows to match or exceed the initial investment.

For calculating the Payback duration, the following method is used:

$$\text{Initial investment} = £20000$$

$$\text{Year 1} = 20000 - 14000 = £6000$$

$$\text{Year 2} = 6000 - 28000 = £22000$$

Year 3 = $-22000 + 45000 = £23000$

Year 4 = $23000 + 48000 = £71000$

Year 5 = $71000 + 50000 = £121000$

Payback duration = Year 3 + (Cashflow for 3 year / cashflow for 4 year)

Payback duration = $3 + (23000/48000)$

Payback duration = 3.5 years.

Non-Financial Methods:

1. Checklist Example

The checklist methodology may be used to evaluate the numerous non-financial benefits of utilizing the Internet for entrepreneurship, including networking, research, and funds raising initiatives (Míguez et al., 2023).

By ensuring that key elements are taken into account throughout the evaluation, the checklist approach offers a thorough grasp of the project's prospective non-financial advantages.

This approach might not provide a numeric rating and might not adequately account for intangible advantages or qualitative features.

Matrix for the Checklist Model for social media and Entrepreneurship

Criteria	Research fundings	Corporate sponsorship	Crowdfunding
Financial support	5	4	3
Industry Involvement	2	5	1
Public Engagement	1	3	5

By considering the above checklist model, one can easily understand that research funding gets a score of 5 from financial support, gets a score of 2 from industry involvement and get a score of 1 from public engagement. Corporate sponsorship and crowdfunding also work in this manner.

2. Multi Weighted Scoring Model.

The multi-weighted score model is a technique for making decisions that weigh multiple characteristics to assess and rank distinct options. This model might be applied to project

proposals to evaluate different research funding possibilities based on factors such as financing accessibility, compatibility with project objectives, and opportunity for collaboration.

Criteria	Weight (0-100)	Score (0-10)	Weighted Score
Scope of Research	20	9	180
Impact of social media on Business	25	8	200
Business Activities on social media	20	7	140
Innovation Enhancement	15	9	135
Overall Business Performance	10	8	80
Literature Review Quality	10	9	90
Total	100		825

Proposal 3

In light of recent developments ²⁵ in the research, development, and use of AI systems, there has been some talk about the ethics of artificial intelligence (Ali et al.,2023). Over the course of the past few years, a great number of different sets of ethical principles have been formulated and disseminated. Therefore, the aim of this project is to maximize the revolutionary potential of future AI technology in an ethical manner.

Mission and Vision

This is accomplished by bringing attention to the presence of overlapping concepts as well as covering the gaps in information. During the inquiry, development, and deployment of AI systems, this project will also analyze how seriously certain ethical notions and ideas are considered. This project will present several approaches that may be considered to improve the effectiveness of complying with the standards for AI ethics.

Project Evaluation

Financial methods:

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1. Net present value:

By conflicting the current value of predicted cash inflows with the beginning cost, Net current Value (NPV) may be used to evaluate the sustainability of an investment. But NPV is dependent on projected cash flows and discount rates, and therefore might not take into account non-financial aspects of the abovementioned AI ethical project idea.

Initial investment= £ 50000

Cash flow for the Year 1: £ 50000

Cash flow for the Year 2: £ 10000

Cash flow for the Year 3: £ 15000

Cash flow for the Year 4: £ 18000

Cash flow for the Year 5: £ 20000

Discount rate = 0.10

$$NPV = \frac{-50000}{(1+r)^1} + \frac{10000}{(1+r)^2} + \frac{15000}{(1+r)^3} + \frac{18000}{(1+r)^4} + \frac{20000}{(1+r)^5} - 50000$$

$$NPV = 325,415$$

2. Return on Investment

ROI is important for assessing how effectively a project generates profits compared to its cost (Delapedra-Silva et al.,2022).

A wide range of interested parties may use ROI since it is straightforward to calculate and understand.

ROI can be calculated by the following formula:

$$ROI = \frac{\text{Current value of Investment} - \text{Cost of Investment}}{\text{Cost of Investment}}$$

$$ROI = (8791.40 / 50000) * 100$$

$$ROI = 17.58\%$$

3. Payback method:

A financial method used to assess how long it takes for a purchase to recoup its initial cost is the

payback method. It calculates the breakeven point by figuring out how long it will take to generate enough cash inflows to cover the initial investment.

To find the payback duration, the following method is used.

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Year 1 = £50000

Year 2 = 50000-10000= £40000

Year 3 = 40000-15000 = £25000

Year 4 = 25000-18000 = £7000

Year 5 = 7000-20000 = £13000

To calculate the payback duration for the 4 and 5 years, the following method is used.

Payback duration = 4+ (7000/20000)

Payback duration = 4.35 years.

Non-Financial methods:

1. Multi Weighted Scoring Model

In order to provide a more thorough review, this model might be used to provide weights to non-financial characteristics, such as the effect on creativity and overall performance.

By taking into account the interests and priorities of stakeholders, this approach enables a customized evaluation.

It may be subjective to choose the right weights, which might have an influence on the evaluation's outcome.

Criteria	Weight (0-100)	Score (0-10)	Weighted Score
Coverage of Ethical Principles	20	8	160
Normative Concepts Application	25	9	225
Identification of Coverage Gaps	15	7	105

Consideration of Ethical Notions	20	8	160
Approaches to Improve Ethics Compliance	20	9	180
Total	100		830

2. Checklist model:

Examining an AI ethics project's commitment to ethical principles, possible social effects, compatibility with company values, as well as legal compliance can be analyzed by using this method. This will improve the project's overall ethical performance.

In the AI ethics project, the checklist technique promotes improved ethical decision-making by offering an organized and thorough review of ethical factors.

Because it relies on preset criteria that could overlook newly developing ethical problems, it might not adequately capture complicated or unique ethical concerns.

Matrix for the Checklist model

Criteria	Score (0-5)
Transparency	4
Privacy	5
Fairness	3
Compliance	5
Social Impact	4
Safety	4

The criteria which are given above have a score from 0 to 5 where 0 represents no compliance and 5 represents highest adherence level.

Total score = $4+5+3+4+5+4$

Total score = 25

Selection of the project from the above three projects

By considering all the information and the results of all five methods used to analyze the feasibility of all three-project proposals, it was concluded that the second project will give greater benefits if implemented because its return on investment is the highest among all the three-project proposals and the payback period is less than 5 years.

Social media has a big influence on traditional company strategies, which is why this project was chosen. Understanding ²⁸social media usage and its impact on entrepreneurship is important as it continues to grow. The study attempts to understand how company owners use social media for purposes other than advertising, enhancing creativity and productivity. This project will aid both academics and companies looking to exploit the development and success potential of social media by shedding light on the subject's scope while providing insightful information for future research.

Three Potential Sources of Funding the Projects and Benefits of Each Funding Source.

1. **Research Fundings:** A good way to get money for study is to apply for grants from colleges and universities, governmental organizations, or private businesses. These funds are intended to fund studies that have a social or academic impact. Benefits include money to help with research costs like gathering data, analyzing it, and sharing the results. Furthermore, research funding frequently has trustworthiness and recognition, which improves the profile of the project and brings in new participants and scenarios for collaboration.
2. **Corporate Sponsorships:** Collaborating with companies in the social media or business space might be advantageous. Companies who are interested in learning how social media affects business procedures may contribute financial resources to the initiative. Direct industry participation, access to useful information and resources, and prospective chances for collaborative publications or events are all advantages. Additionally, corporate sponsors could present chances for networking and exposure, boosting the influence and awareness of the project.
3. **Crowdfunding:** With the help of crowdfunding websites like Kickstarter (2023) or GoFundMe (2023), a larger audience may become involved in supporting the initiative. People who are interested in the subject can donate money. Benefits include promoting interest in the study, democratizing the financing process, and enabling public engagement. Crowdfunding can

also draw possible partners or media interest and function to provide pre-validation of the endeavor's significance.

Conclusion

In the above report, there are three project proposals discussed and evaluated. The first proposal is related to home automation safety by using the Internet, the second proposal is related to the use of social media in business, and the third proposal is related to artificial intelligence. Each project includes an overview of the project proposal, and mission, and vision of the project. The projects were evaluated using three financial methods and two non-financial methods. According to the results of the evaluation it was concluded that the second project will give greater benefits if implemented because its return on investment is the highest among all the three-project proposals and the payback period is less than 5 years.

At the end three potential sources of funding the project and the benefits of each funding source were discussed and analyzed.

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