

# PMQ603 Assignment 1:

## Annotated bibliography

### Introduction

The research topic chosen here is “How Timely, Appropriate Decision-making Ability Improving Project Performance”. A timely decision is important for project success and viability. A project can face different types of risk both internally and externally. While some risks are inherent or systematic, others are not systematic. A project can make adjustments to compensate for the systematic risk while other types of risk cannot be factored into the project. Thus it is important to identify such unsystematic risks and place the necessary buffers to decrease their impact. The bibliography presents different research works that showed the relationship between project performance and variables affecting project performance in different types of sectors.

### Sources

#### Source 1

Year of publication	2019
Full reference (APA style)	Lester, D., & Torero, J. (2019). Using megaproject performance outcomes to enhance decision-making behaviors in civil engineering graduates. <i>Construction Economics and Building</i> , 19(1). <a href="https://doi.org/10.5130/AJCEB.v19i1.6504">https://doi.org/10.5130/AJCEB.v19i1.6504</a>
Title of source	Using megaproject performance outcomes to enhance decision-making behaviors in civil engineering graduates
Journal title (if applicable)	<i>Construction Economics and Building</i> , 19(1).
Summary of source (approx. 70 words)	
As per this literature, according to a thorough overview of the performance of megaprojects, the factors that predispose to failed projects are behavioral. Cost increases and project delay were related to actions of dishonesty and deceit, with the capacity to study lessons, as well as misalignment of incentives identified as influencing variables. The literature includes a study of mixed methods which helped in gaining an understanding of decision-making trends among the civil engineers who are yet to be graduates and the role of education that can aid in improving the behaviors of decision making.	
Key findings/ conclusions (approx. 70 words)	
The key findings of the research were that the participants in the Icarus Program outperformed the general group on the test of Critical Thinking. During their time in the Icarus program, members had a continually lower Academic performance. Students in the Icarus program had a stronger 'False consciousness' rating (in both capability and total), which exhibited a significant negative link with the overall score of Critical Thinking. Upon the Intrinsic Motivation Scale, participants of the Icarus	

Program showed better scores. Icarus participants had better or significantly favorable connections with their friends or peers as well as instructors or advisors.

Research method used (approx. 50 words)

Questionnaire-based semi-structured interviews were carried out and Interpretative Phenomenological Analysis was applied for evaluation. Responses are ranked according to their relative importance. The Interpretative Phenomenological Analysis was applied to evaluate the characteristics and factors and the main driving forces that are most relevant in the decision-making of the undergraduates in different situations.

Significance of the source to your research topic (approx. 80 words)

The interview was created through a questionnaire that the analyst thought would connect with the subject both in and out of an academic environment considering that it would reflect the decisions of future, present, and past. The findings of this research suggest that the academic environment can affect the decision-making behaviors of the undergraduate students which can aid in the future graduates in the industry. Aside from that, the research employs simple statistical procedures for evaluation that may be comprehended even by persons with less statistical understanding.

## Source 2

Year of publication	2019
Full reference (APA style)	Rumeser, D., & Emsley, M. (2019). Can serious games improve project management decision making under complexity?. <i>Project Management Journal</i> , 50(1), 23-39. Q-methodology. International Journal of Project Management, 35(6), 1133-1150. Retrieved 5 May 2022, from <a href="https://journals.sagepub.com/doi/full/10.1177/8756972818808982">https://journals.sagepub.com/doi/full/10.1177/8756972818808982</a> .
Title of source	Can Serious Games Improve Project Management Decision Making Under Complexity?
Journal title (if applicable)	Project Management Journal
Summary of source (approx. 70 words)	
The present literature does not factor in the levels of project complexity on the performance of decision-making. This research is new as it is doing experiment in which 2 same project games of project management but entirely new level of complex are used. The understanding from the research suggests that performance can be bettered by these games in the decision making of the players in both levels of low complexity and high complexity.	
Key findings/ conclusions (approx. 70 words)	
Decision-making performance can be improved by project management serious games in both less complex and highly complex difficulty levels. Investigation of the impact of levels of difficulty on the performance of decision making of students indicates that levels of complexity cannot impact the improvement of the performance of decision making. Although the research does show that more complex game has more impact on the program groups which are constituted of participants who has more than 2 years of experience, in the improvement of decision-making performance.	
Research method used (approx. 50 words)	
2 types of project simulation games developed which are project crashing game and program crashing game to evaluate project's performance after each decision. The link between project level	

of complexity and better decision is evaluated using quantitative techniques such as chi-squared test of independence. For this 6 hypothesis were tested.

Significance of the source to your research topic (approx. 80 words)

This research is unusual in that it examines a fully programmable simulation-based project that aids in the resolution of complex decision-making levels. This unique capacity to generate simulated projects allows researchers to change any decision-making characteristics in project settings to get as near to a legitimate project as possible. According to this research, serious games of project management can help people make better decisions in both simple and complex project settings. It also looks into the impact of complications on learners' decision-making abilities.

### Source 3

Year of publication	2020
Full reference (APA style)	Rigo, P. D., Rediske, G., Rosa, C. B., Gastaldo, N. G., Michels, L., Neuenfeldt Júnior, A. L., & Siluk, J. C. M. (2020). Renewable energy problems: Exploring the methods to support the decision-making process. <i>Sustainability</i> , 12(23), 10195. <a href="https://www.mdpi.com/2071-1050/12/23/10195/pdf">https://www.mdpi.com/2071-1050/12/23/10195/pdf</a> .
Title of source	Renewable energy problems: Exploring the methods to support the decision-making process.
Journal title (if applicable)	Sustainability 2020
Summary of source (approx. 70 words)	
The research paper discusses the role played by the decision-making process to structure and evaluate the situations of complicated decisions pertaining to sectors by taking into account the different objectives and criteria. By expanding the study on renewable sources of energy and energy decisions that are strategic, the decision-making process also serves to stimulate the adoption of legislation that promotes efficiency initiatives for energy. The methodological approach is preferable in decision making as the large concept of multi decision support methods is accessible and their effectiveness in resolving massively complicated problems, selecting and applying them in specific choice scenarios is difficult.	
Key findings/ conclusions (approx. 70 words)	
MCDM has become a common device in the field of energy planning, because of the flexibility it allows decision-makers to offer scientific support applied to a wide range of challenges. Resource identification, site, sustainability, the performance of projects, and technical performance were recognized as five main categories of challenges tackled using MCDM methodologies in the study. If a decision-maker faces an issue including a large number of criteria to consider in sustainable and renewable energy, managers can employ condensed methodologies to solve the issue.	
Research method used (approx. 50 words)	
The paper has used the review method by developing questions of reviews. Three relevant database articles were used for the research from the area of energy such as IEEE, SCOPUS, and Web of Science. As the scenarios of decisions have changed in recent years the article that was collected were published between 2009 and 2019.	
Significance of the source to your research topic (approx. 80 words)	
The research helps in evaluating the MCDM method that can be used in the decision-making process in various decision situations in the energy sector's project management improvement. The decision-making step in planning is critical in constructing and assessing complicated decision	

circumstances in the energy sector, taking into account a variety of parameters and priorities, and trying to encourage the development and implementation of regulations to encourage energy-saving behavior by continuing to increase research of renewable energy and tactical energy choices. As a result, this article aids decision-makers in the energy sector, innovators, financiers, and legislation makers in improving their capacity to select appropriate MCDM strategies for solving energy issues.

#### Source 4

Year of publication	2021
Full reference (APA style)	Murray, D. J., Boulet, J. R., Boyle, W. A., Beyatte, M. B., & Woodhouse, J. (2021). Competence in Decision Making: Setting Performance Standards for Critical Care. <i>Anesthesia &amp; Analgesia</i> , 133(1), 142-150. <a href="https://journals.lww.com/anesthesia-analgesia/Fulltext/2021/07000/Competence_in_Decision_Making__Setting_Performance.20.aspx">https://journals.lww.com/anesthesia-analgesia/Fulltext/2021/07000/Competence_in_Decision_Making__Setting_Performance.20.aspx</a> .
Title of source	Competence in Decision Making: Setting Performance Standards for Critical Care
Journal title (if applicable)	Anesthesia & Analgesia: July 2021
Summary of source (approx. 70 words)	
Health care providers should be capable of making good judgments that can change the course of acute medical care for a patient's condition. The paper includes that although establishing a competency criterion for this capacity is challenging, ensuring that physicians can make proper judgments is a critical step in improving the safety of patients. Simulations could be utilized efficiently to test decision-making ability, according to the article.	
Key findings/ conclusions (approx. 70 words)	
The key findings of the research are that standard-setting strategies can be used to define minimum competency levels for decision-making of high-stakes. The study was successful in identifying "front-line" physicians who are prepared and who are not prepared to take decisions independently in the Intensive care unit. The method of the research could be utilized to reassure all the parties that physicians are capable of making sound decisions. The research concludes that more research is required to see if the technique works in simulation-based evaluations in other disciplines.	
Research method used (approx. 50 words)	
In the research standard-setting technique or method has been used to assess standards for 16 intensive care unit simulated scenarios. This method was focused on the skills of decision making and it was applied to a critical care trainee group. Reviewers evaluated intensive care trainees' digital performances in audio and video in the critical care settings simulation.	
Significance of the source to your research topic (approx. 80 words)	
This research highlights the relevance of the standard-setting method in the decision-making process for high stakes in the healthcare sector. The importance of this kind of research lies in the	

fact that it is carried out in an intensive care unit setting where the competency of decision-making is of utmost importance. Accurate judgment in the healthcare sector by the practitioners is crucial for the advancement of the safety of patients and this can be accomplished by enhancing decision-making skills.

### Source 5

Year of publication	2017
Full reference (APA style)	Blauth, M. J., Mauer, R., & Friederichsen, N. (2014). Increasing the problem solving speed through effectual decision making. In Academy of Management Proceedings (Vol. 2014, No. 1, p. 13338). Briarcliff Manor, NY 10510: Academy of Management. <a href="https://doi.org/10.5465/ambpp.2014.13338abstract">https://doi.org/10.5465/ambpp.2014.13338abstract</a> .
Title of source	Increasing the Problem Solving Speed Through Effectual Decision Making
Journal title (if applicable)	Academy of Management Proceedings Vol. 2014
Summary of source (approx. 70 words)	
This paper discusses the relevance of effectuation as a method of decision-making for the various situations that are uncertain by transferring the focus to control logic from prediction logic. The article includes that the speed of solving problems is important to have a competitive edge among the organizations since it encourages the capability of developing and marketing the product innovations in a time-efficient way. However, the survey in the research has shown that the speed of solving problems can be slowed down by the orientation of competition and the dimension of objectives that are causal.	
Key findings/ conclusions (approx. 70 words)	
The key finding of the research is that in extremely unpredictable situations, accepting the unforeseen as among the four effective aspects has a favorable effect on the speed of solving problems. The causative features of achievement and a competitive market, on the other hand, decrease the speed of solving problems. The moderating influence of ambiguity is present in all outcomes. Therefore, basing decisions in unexpected circumstances on the logic of decision-making of entrepreneurs partly shows disparities in the speed of problem-solving and reveals a new source for an edge over its competitors.	
Research method used (approx. 50 words)	
A survey has been used in the research for understanding the dimensions that have an effect on the speed of solving problems. Research that is sequential explanatory was used to find the impact of uncertainty on the speed of problem-solving among the employees of new product development.	
Significance of the source to your research topic (approx. 80 words)	
The speed of problem-solving is a relevant feature of decision-making. If the speed of solving problems is efficient a company can have a competitive edge over its competition in an industry. This research helps in understanding that the uncertainty of situations can influence the speed of problem-solving. The research highlights that if uncertainty is acknowledged as one of the dimensions of the effectuation the factor can work as a beneficial influence on the speed of problem-solving which will enhance the overall decision-making process in uncertain circumstances.	

### Source 6

Year of publication	2018
Full reference (APA style)	Mousaei, M., & Javdani, T. (2018). A new project risk management model based on Scrum framework and Prince2 methodology. <i>International Journal of Advanced Computer Science and Applications</i> , 9(4). Retrieved 5 May 2022, <a href="https://www.researchgate.net/profile/Taghi-Javdani-Gandomani-2/publication/324968146_A_New_Project_Risk_Management_Model_based_on_Scrum_Framework_and_Prince2_Methodology/links/5b07bf434585157f87130a80/A-New-Project-Risk-Management-Model-based-on-Scrum-Framework-and-Prince2-Methodology.pdf">https://www.researchgate.net/profile/Taghi-Javdani-Gandomani-2/publication/324968146_A_New_Project_Risk_Management_Model_based_on_Scrum_Framework_and_Prince2_Methodology/links/5b07bf434585157f87130a80/A-New-Project-Risk-Management-Model-based-on-Scrum-Framework-and-Prince2-Methodology.pdf</a>
Title of source	A New Project Risk Management Model based on Scrum Framework and Prince2 Methodology
Journal title (if applicable)	(IJACSA) International Journal of Advanced Computer Science and Applications
Summary of source (approx. 70 words)	
Failure in software projects results from a lack of decision-making ability due to improper management of risk in the process of software development. Through better adherence to the management of risk mechanisms, the chance of viability of projects of software can be improved. This research study suggests a technique of management of risk by interviewing participants who are experts in Agile from six countries.	
Key findings/ conclusions (approx. 70 words)	
The model framework was created by utilising techniques of management of risk with framework of the Scrum framework and Prince2 which is a project management. This caused the rates of success to increase in projects. Although a few sections of the scrum framework led to more generation of risk in the development of software but were managed by the framework and this caused risk to come down.	
Research method used (approx. 50 words)	
Applied empirical research carried out involving 5 steps. (i) Data was collected using a questionnaire and analysed statistically. (ii) For measurement to be valid, a questionnaire which is standard is used. The questions were sent to experts and researchers and their comments and corrective actions were incorporated into the questionnaire. (iii) reliability was tested using Cronbach's alpha method. (iv) target population included 52 people. (v) Model proposal.	
Significance of the source to your research topic (approx. 80 words)	
The research highlights the fact that any project involves a certain degree of risk, one of which is poor project performance can be caused by a lack of timely, adequate decision-making capacity, which requires proper risk management. The studies from this particular research in software can also be applied in other fields and develop techniques to mitigate such decision-making risks. The	

classification of different types of risks of decision making and allocation of those risks on particular levels depending upon their impact on the project is also included in the research.

### Source 7

Year of publication	2014
Full reference (APA style)	Ramezani, F., & Lu, J. (2014). An intelligent group decision-support system and its application for project performance evaluation. Journal of Enterprise Information Management. <a href="https://opus.lib.uts.edu.au/bitstream/10453/32971/4/An%20intelligent%20group%20decision-support%20system%20and%20its%20application%20for%20project%20performance%20evaluation.pdf">https://opus.lib.uts.edu.au/bitstream/10453/32971/4/An%20intelligent%20group%20decision-support%20system%20and%20its%20application%20for%20project%20performance%20evaluation.pdf</a> .
Title of source	An Intelligent Group Decision Support System and Its Application for Project Performance Evaluation
Journal title (if applicable)	Journal of Enterprise Information Management
Summary of source (approx. 70 words)	
The objective of this research is to create a Fuzzy Multiple Attribute-based Group Decision Support System that uses the simple method and the Methodology for ranking Preference by the resemblance to the suitable Solution method to assess project effectiveness in trying to promote the goal of the organization. The suggested FMAGDSS is concerned with selecting the best flexible scoring technique to solve a Flexible Multi-dynamic problem of Decision Making involving either qualitative or quantitative characteristics, as well as decision-makers' ambiguous assessments.	
Key findings/ conclusions (approx. 70 words)	
The study's findings simplify and speed up the examination procedure. The suggested approach assists businesses in selecting much more efficient undertakings for long-term development. It also helps in assessing the trustworthiness of the decision-making procedure and helps in reducing the ambiguity in final decisions produced by decision-makers' doubtful judgment. Since the FMAGDSS model software is dynamic in terms of the number and types of conditions, the number of decision-makers and options, and issues of decision making, it can be used in a wide range of decision-making situations.	
Research method used (approx. 50 words)	
An FMAGDSS framework is used in this research to examine the ratings and rankings of each project in terms of achieving the organizational goals. Firstly, in this model, based on the organizational goals and criteria of evaluation the projects are examined. Secondly, the model will select the appropriate ranking method which will help in solving the decision-making problems which has multi fuzzy attributes. Finally, the model will help to enhance the decision-making process and offer opportunities to accomplish organizational goals.	
Significance of the source to your research topic (approx. 80 words)	
This study adds to the existing research by presenting an FMAGDSS model for evaluating projects that support an organization's objectives through solving problems of decision making. Based on the kind and amount of characteristics and options, the suggested FMAGDSS can find the most suitable fuzzy scoring function to handle a particular decision-making problem that has multi fuzzy	



attributes, taking into account the minimal calculation and consumption of time for scoring alternatives. The paper explains the FMAGDSS model can offer opportunities to evaluate the influence of the weights of criteria and the performance of projects to improve the decision-making process for achieving organizational goals.

### Source 8

Year of publication	2020
Full reference (APA style)	Liu, L. (2020, June). Research on Performance and Decision-making Method of Project Management Mode. In <i>IOP Conference Series: Earth and Environmental Science</i> (Vol. 526, No. 1, p. 012219). IOP Publishing. Retrieved 5 May 2022, <a href="https://iopscience.iop.org/article/10.1088/1755-1315/526/1/012219/pdf">https://iopscience.iop.org/article/10.1088/1755-1315/526/1/012219/pdf</a>
Title of source	Research on Performance and Decision-making Method of Project Management Mode
Journal title (if applicable)	IOP Conference Series: Earth and Environmental Science
Summary of source (approx. 70 words)	
This research applies the technique of group decision in its project management performance and methods used to make decision. The index system used for evaluation of performance is modelled in this paper in this paper and established mode of evaluation of performance with respect to project integrated management. This gives an idea of method used in decision making in the project and the performance of the project.	
Key findings/ conclusions (approx. 70 words)	
A capable and detailed index for evaluation of the performance of the project is established, and the technique of decision making of the expert group is applied, to construct a multi-project management performance evaluation mechanism. This mechanism improved the performance evaluation of the many projects, enabling the mechanism to warn beforehand to take care of the present issues, as well as providing a good platform for competition for participants of projects, and delivering a good process of incentive distribution.	
Research method used (approx. 50 words)	
There are 2 parts, 1 <sup>st</sup> is designing the evaluation of the performance of project management's system of index, which involves constructing the modelling an index system design basis and content development of the evaluation index system. 2 <sup>nd</sup> is the establishment of a model for evaluation of performance with respect to the management of the project set, which involves, evaluating the performance of every segment at the level of the subproject, determination of the expert performance appraisal and calculating the performance score.	
Significance of the source to your research topic (approx. 80 words)	
This paper helps to understand the integration between key indicators of performance and general index in the development of a performance evaluation index for project management. This research paper will help to incorporate the importance of the performance evaluation index in the light of effective decision making. The aim is to show that timely decision is not the only criteria to improve project performance. Without proper index development for project performance evaluation, it will not be possible to determine the impact of timely decisions on project.	



### Source 9

Year of publication	2017
Full reference (APA style)	Di Maddaloni, F., & Davis, K. (2017). The influence of local community stakeholders in megaprojects: Rethinking their inclusiveness to improve project performance. <i>International journal of project management</i> , 35(8), 1537-1556. Retrieved 5 May 2022, <a href="https://www.researchgate.net/publication/320274728_The_influence_of_local_community_stakeholders_in_megaprojects_Rethinking_their_inclusiveness_to_improve_project_performance">https://www.researchgate.net/publication/320274728_The_influence_of_local_community_stakeholders_in_megaprojects_Rethinking_their_inclusiveness_to_improve_project_performance</a>
Title of source	The influence of local community stakeholders in megaprojects: Rethinking their inclusiveness to improve project performance
Journal title (if applicable)	International journal of project management
Summary of source (approx. 70 words)	
This paper evaluates different types of research through a systematic literature review to identify the impact of stakeholders on the local community through public projects. Previous works put emphasis on stakeholders who enjoy more control in projects and ignored the local community. It is recommended that the local community must be taken into confidence during all phases of project implementation and close monitoring of the impact of such projects on the local community will improve project performance.	
Key findings/ conclusions (approx. 70 words)	
Local opposition poses a serious threat to megaprojects as they exert pressure in the completion of projects. This kind of opposition should be regarded as an expression of the requirements of the people where project is carried out. For this reason the project managers should try to understand and empathise with local people and put effort to understand their concerns, needs and moral problems.	
Research method used (approx. 50 words)	
The research covers almost 91 papers written from 1997 to 2015 in journals. The researchers developed a framework for the papers, by utilizing information from three areas which are mega projects, stakeholder analysis and the local community. A Systematic Literature Review of the 91 papers was done where a systematic procedure is applied to construct rigorous search criteria for selecting the best quality evidence. After that in order to present the empirical findings in a correct manner and key findings, a framework for organizing the finding was constructed.	
Significance of the source to your research topic (approx. 80 words)	
This research will help me understand the effect of the local community on project management and the ways it can derail the scheduled tasks in a project. Execution of scheduled tasks within the specified time in a project also constitutes an important part of the timely decision-making ability. The aim is to create views of impact from two different perspectives. One is the impact of the	

project on the regional people and the other is the impact of the local community on the project performance in a cyclical manner.

### Source 10

Year of publication	2019
Full reference (APA style)	Urbański, M., Haque, A. U., & Oino, I. (2019). The moderating role of risk management in project planning and project success: Evidence from construction businesses of Pakistan and the UK. <i>Engineering Management in Production and Services</i> , 11(1), 23-35. Retrieved 5 May 2022, <a href="https://sciendo.com/it/article/10.2478/emj-2019-0002">https://sciendo.com/it/article/10.2478/emj-2019-0002</a>
Title of source	The moderating role of risk management in project planning and project success: evidence from construction businesses of Pakistan and the UK
Journal title (if applicable)	Engineering Management in Production and Services
Summary of source (approx. 70 words)	
This research report examines the impact of management of risk in the planning of projects and the success of the project in the business of construction in 2 countries. This survey is conducted on managers of project numbering at 152 and the purposive sampling technique and RAND formulae were applied to select project managers. The finding shows that planning for the project makes a large effect impact on the successful completion of the project. It also revealed that management of risk highly controlled the link between the planning of the project and actual success of the project.	
Key findings/ conclusions (approx. 70 words)	
The study showed that risk management can change the relationship between planning for the project and the success of the project in both countries. It also indicated that although there is a vast difference between the economies of the UK and Pakistan still the issues faced, deviations encountered and business ups and downs were more or less similar for both. Thus, management of risk makes a large impact on both the planning of the project and the success of the project and the effect was found to be close in both the countries.	
Research method used (approx. 50 words)	
152 project managers were selected for the questionnaire by applying the RAND function from a list of selected organisations. The response was grouped under data for (i) success of the project, (ii) planning of the project and (iii) using 5 point scale of scale of Likert for evaluation of the management of the risk in the project. Smart PLS is applied to analyse data.	
Significance of the source to your research topic (approx. 80 words)	
This research helps to show that the importance of timely decisions in risk management to improving project viability and survival is independent of the economy or the origin country. Whether it is a middle-income country or an upper-income country the importance of risk management in moderating the success rate of a project cannot be ignored. <b>Risk management is explained in the research as important in project planning and decision making is a crucial component of project planning and construction. A shortage of rapid, appropriate decision-making ability can lead to decreased project performance, which necessitates proper risk management.</b>	

