

Programme: BA Business Management

Student Name :Marius Moldoveanu

STUDENT NUMBER : 2023028

Module: Project Management

Module code: LCBB5005

Module Coordinator/Lecturer:

Dr Molly Jack- GP1&2

Assignment Title:

Project Management (Assessment 1)

Table of Contents

Introduction.....	3
Main body	3
Reference List	9

Introduction

Project success factors mainly depend upon some necessary activities, such as -appropriate project planning schedule maintenance, risk factors and appropriate project timing. The main aim of conducting the research study is to evaluate the CrossRail Project (Elizabeth Line). The project is all about encompassing new stations by manufacturing new infrastructure, new trains and new tracks. In this study, a brief explanation of the project and project basis activities are going to elaborate in this section of the research. In the project planning, time and stakeholders take place and these factors are also going to explain in this study by providing a brief explanation. Apart from that, quality stakeholders and the main reasons behind overruns and delays of the project are also going to take place in this section of the research study.

Main body

About the project

Crossrail railways are mainly located in central London and the main aim of constructing the project is to provide a high-frequency hybrid commuter rail between East and West railways station of London. As per the statement of Aqib *et al.* (2019), one of the main reasons for taking steps to complete the project is to make the station underground from Paddington Station to a junction near Whitechapel. In order to fulfil the main aim of the project it has been seen that the construction team of the UK approved the project in 2007 and the construction work activities had been started in 2009. The central section of the project opened on 24 May 2022 where within an hour a total number of 12 trains can be passed. The main train line opened on 17 May 2022 for checking purposes. Additionally, it has been expected that this will be completed within the initial budget of £14.8 billion to £18.8 billion (Crossrail.co.uk, 2022).

On the basis of project planning and schedule, the project would be opened in 2018, but due to the Covid-19 pandemic situation, all the project planning and activities had been delayed. On the contrary, Alwaly and Alawi (2020) argued that, behind completing any project planning activities and process, all the schedule-making activities and procedure needs to be maintained appropriately including the scope of project success needs to be determined appropriately. For example, it has been realised that in the Crossrail railways' project proposal regarding issues was present because according to the basis of the project it has been seen that, the concept of starting the project was held in 1974 and the entire estimation was £300 million.

Therefore it has been seen that, behind completing any project and project regarding activities and project, appropriate planning ideas and concepts are mandatory. The project management team has significantly followed all the project basis concepts and risk management activities and due to this reason, a massive success has been gathered from this railway project. Furthermore, due to the Covid- 19 pandemic situation, it has been the project scheduling and schedule-making activities have been delayed which significantly impacted project aims and objectives. On the other hand, for making a good and appropriate line-up between east and west railway stations, the planning has been taken. Contextually, in the project 6.2-kilometre-long (3.9-mile) distance will take place (Crossrail.co.uk, 2022).

Project planning

The UK government made their planning before 1974 whereas the total estimation of completing the planning was £300 million but there were some functional and strategic problems which delayed all the project-based activities. As per the statement of Rahimian *et al.* (2020), appropriate scheduling making activities and procedures are used to take beneficial, support for making any project successful. For example, it has been realised that in the Crossrail railways project whether some delays were presented but appropriate planning had been done, such as additional passenger capacity has been included in this project as well as another major planning of conducting the project planning is to give relief to the passengers from cutting journey between east and west railways journey. On the other hand, in the Crossrail railway project, transforming accessibility has been added and the main aim of following this method is to provide a good journey expense to people between Paddington and Abbey Wood by reducing timing and better passenger services. Furthermore, it has been realised that, for giving a good travel experience to the people transforming travel across London and the South East. It has been realised that, according to their planning, Sunday services between Paddington and Abbey Wood would not be considered at lunch. On the other hand, in the east, from Shenfield to Liverpool Street, and west, from Reading and Heathrow to Paddington will continue the same as before.

According to the basis of the project planning and planning basis activities, it has been realised that the Crossrail programme will take place where the passenger services will take place in Tottenham Court, Bond Street, Whitechapel and Liverpool Street. Furthermore, in the planning and planning-based activities, according to the basis of planning and scheduling making activities, Abbey Wood station will be connected which would be the 10th station of Central London. In

order to make the terminal connection, the planning schedule has been redeveloped by Network Rail. As influenced by Salom *et al.* (2021), in the case of the location-shifting process and procedure, appropriate planning is one of the essential factors. Focusing on the factors, the project management team has made adequate planning for arranging planning-based activities where it has been determined that 31 of the 41 stations along the Elizabeth line route would take place. Additionally, it has been realised that the rail network has taken place to make the appropriate tracking-based activities and keep track of monitoring procedures. On the contrary Nižetić *et al.* (2019) in present days the utilisation of modern technology and utilisation of digital technology-based components can increase service efficiencies. In order to maintain all the project goals and activities, it has been seen that Network Rail and TfL have been installed as well as new footbridges and lift installation have been done by the project management team.

In order to complete all the project aims and activities improved, the project management team enabled step-free access across the entire route. The main reason for this plan is to improve the passenger service. Apart from that, a larger number of stations have been modernised in order to improve the linking process. Additionally, as per the statement of González-Trinidad *et al.* (2020), in order to improve any station's link-up with sub-stations, the application of the modernisation method can provide beneficial support. As per the project planning-based activities, the project management of this railway project has significantly followed the station upgradation-based method, where remodelling the waiting room, ticket hall and additional entrance at Romford are present. On the other hand, Artagan *et al.* (2020) argued that, in railway services, appropriate maintenance of integration service maintenance is one of the most important elements. In the case of fulfilment of all the aims and objectives of the project, between the east and west connection the integration method has played a beneficial support.

It has been replied that for enhancing the effectiveness of the connection method, the project management team has followed the adequate technique where full timetable regarding activities have been maintained by following an appropriate value and value proportion activities and procedure. Apart from that, the software installation has also taken place in this project, where the time scheduling process and managerial implication have played an essential role. Therefore it can be analysed that, in the case of project planning, based activities and processes are the most important factors which used to play important support for project success. The project management team has taken steps for the implementation of digital technology-based methods,

and as an impact of that, it has provided major support to keep tracking all the project-based activities. The location-shifting process has also played a massive contribution in making all the stations east and between.

Project time

There are several controversies that have been present about this project and the conclusion is explaining that the timing was not maintained appropriately. After analysing the project timing it has been analysed that the actual proposal of the entire project had been held in June 1941 because the government of the UK had faced an issue in the connection between London and Paddington in the west and Liverpool Street. As per the statement of Bousdekis *et al.* (2021) for making any project aim and objectives, the appropriate maintenance of scheduling making activities and processes used to play beneficial support. On the basis of the planning and schedule-making activities, it has been realised that in 1989 the project starting selection was proposed whereas the budget was £885 million. Furthermore, after the sanction of the project in 2007, construction-based work activities were started in 2009 (Crossrail.co.uk, 2022). After starting the project it has been analysed that all the project activities were done in ten stages. According to the basis of stages, it has been realised that, in 2015, the TFL Liverpool Street mainline had been in the case of making Shenfield route whereas Greater Anglia 'Metro' services have been replaced by running the same trains. Furthermore, in 2017 new Class 345 trains in the east planning have been started and were purpose-built for the Elizabeth line on the Liverpool Street mainline. According to the basis of project planning and activities, in 2018- 2019 TfL Rail had been made between Heathrow and Paddington mainline and Reading and Paddington mainline respectively. On the contrary, Usuga Cadavid *et al.* (2020) argued that adequate time-schedule maintenance is one of the most important factors for fulfilling any project aim and activities. On the basis of project time schedule-based activities and procedures it has been realised that the timetable-changing activity had been done in 2021. Apart from that, the Elizabeth line has been completed by 2022 whereas the TfL Rail line has also been constructed significantly.

Quality stakeholders

In the case of fulfilment of project activities and processes, the involvement of business stakeholders used to play beneficial support. As per the statement of Usuga Cadavid *et al.* (2020), the involvement of business stakeholders and their activities is used to play major support in fulfilling any project aim and success-based activities. In the case of getting success of the project,

London's transport infrastructure had been involved where 10% of the capacity had been in making infrastructure-based factors and activities have also been a huge significant benefit (Pracademy.co.uk, 2022). Furthermore, in the consultation phase, the construction workers and project planners have taken place which has provided massive support for fulfilling the project aim and activities. Additionally, the project monitoring team was involved in keeping a record of all the data management and calculation of expenses.

It has been realised that, to make infrastructure basis activities improve and fulfilling all the line-up basis factors and link-up with the substations, the "Young Crossrail" programme" had been arranged by the project management team whereas Crossrail engineers had been a massive support. On the contrary Bertram *et al.* (2019) argued that all the schedule-making activities and procedures need to be maintained by following all stages in a project. After analysing this project and project-based activities it has been realised that, in the construction phase in this project, the construction team and the project monitoring team were present. Therefore it has been analysed that, an appropriate contribution of the business stakeholders to maintain the consultation phase and construction has played a beneficial support.

Risk factors

The Crossrail Project was one of the most complicated projects whereas several risk factors were present because the length of the project was significantly higher. As per the statement of Wamba-Taguimdje *et al.* (2020), before taking any step about any project, the appropriate analysis of the potential risk factors and solutions is used to enhance the possibilities of getting success of any project. It has been seen that making Crossrail tunnels was one of the most challenging for the project management team because the location is within the London basin, which is an east-west trending geological syncline due to this reason arrangements of all the activities become a major challenge for the team. On the contrary Thornber *et al.* (2020) argued that in construction projects the geographical location not only creates a major issue, but these technical error-based risk factors can also increase the possibilities of risk factors.

After analysing project tasks and activities it has been replied that the project management team has been faced with technological risk factors where water suction issues have been faced by the project management team because at the start they did not get the expected outcomes for such water during construction of the tunnel. On the other hand, it has been realised that hard strata regarding issues have been faced by the project management team (Learninglegacy.crossrail.co.uk,

2022). Furthermore, aggressive ground and groundwater throwout from the areas of the tunnel has become a major challenge for the management of the organisation. Sometimes it has been analysed that supervision and monitoring planning activities have made a major issue and challenge for the project management team. Therefore it can be said that, behind getting a major success result at the end of any project, the project management team needs to determine the areas of risk factors and the areas which need to improve. The project management of the Crossrail Project has faced geographical and technological challenges.

Reasons for overruns and delays of the project

There are several reasons behind the delay of the project and project regarding activities, such as - inappropriate follow-up of all the project scheduling activities. On the other hand, due to the presence of technical issues, it has been seen that the project activity-based timings had been distorted. On the other hand, it has been replied that due to strictness during Covid- 19 pandemic conditions, all the project activities did not complete. As an impact of that, it has been determined that due to the obstacles in project activities it has been seen that, the timing of the project and project-based factors have been delayed.

Conclusion

After completing the entire study it can be concluded that project success factors usually depend upon some necessary factors, such as - proper project planning schedule maintenance, risk factors and adequate project timing. In this study, a brief explanation of the Crossrail Project- Elizabeth Line has been elaborated in this study with providing a brief explanation. Reasons for overruns and delays of the project have taken place in this section of this research study. In the case of project planning, based activities and processes are the most important factors which used to play important support for project success. The necessary evidence and information have played a beneficial support to fulfil the aim and objectives of conducting this study.

Reference List

- Alwaly, K.A. and Alawi, N.A., 2020. Factors affecting the application of project management knowledge guide (PMBOK® GUIDE) in construction projects in Yemen. *International Journal of Construction Engineering and Management*, 9(3), pp.81-91.
- Aqib, M., Mehmood, R., Alzahrani, A., Katib, I., Albeshri, A. and Altowaijri, S.M., 2019. Rapid transit systems: smarter urban planning using big data, in-memory computing, deep learning, and GPUs. *Sustainability*, 11(10), p.2736.
- Artagan, S.S., Bianchini Ciampoli, L., D'Amico, F., Calvi, A. and Tosti, F., 2020. Non-destructive assessment and health monitoring of railway infrastructures. *Surveys in Geophysics*, 41(3), pp.447-483.
- Bertram, N., Fuchs, S., Mischke, J., Palter, R., Strube, G. and Woetzel, J., 2019. Modular construction: From projects to products. *McKinsey & Company: Capital Projects & Infrastructure*, pp.1-34.
- Bousdekis, A., Lepenioti, K., Apostolou, D. and Mentzas, G., 2021. A review of data-driven decision-making methods for industry 4.0 maintenance applications. *Electronics*, 10(7), p.828.
- Crossrail.co.uk, 2022. *DELIVERING THE ELIZABETH LINE*. Available from: <https://www.crossrail.co.uk/project/our-plan-to-complete-the-elizabeth-line/> [Accessed on 20th November 2022]
- Crossrail.co.uk, 2022. *PHASED OPENING*. Available from: <https://www.crossrail.co.uk/project/our-plan-to-complete-the-elizabeth-line/phased-opening#:~:text=Between%20May%202021%20and%20May,new%20central%20section%20from%20Shenfield%2C> [Accessed on 20th November 2022]
- González-Trinidad, J., Júnez-Ferreira, H.E., Bautista-Capetillo, C., Ávila Dávila, L. and Robles Roveló, C.O., 2020. Improving the Water-Use Efficiency and the Agricultural Productivity: An Application Case in a Modernized Semiarid Region in North-Central Mexico. *Sustainability*, 12(19), p.8122.

Learninglegacy.crossrail.co.uk, 2022. *Crossrail project: managing geotechnical risk on London's Elizabeth line*. Available from: <https://learninglegacy.crossrail.co.uk/wp-content/uploads/2017/04/Managing-geotechnical-risk-on-Londons-Elizabeth-line.pdf> [Accessed on 20th November 2022]

Nižetić, S., Djilali, N., Papadopoulos, A. and Rodrigues, J.J., 2019. Smart technologies for promotion of energy efficiency, utilization of sustainable resources and waste management. *Journal of cleaner production*, 231, pp.565-591.

Pracademy.co.uk, 2022. *Community first: Crossrail stakeholder management case study*. Available from: <https://pracademy.co.uk/insights/community-first-crossrail-stakeholder-management-case-study/> [Accessed on 20th November 2022]

Rahimian, F.P., Seyedzadeh, S., Oliver, S., Rodriguez, S. and Dawood, N., 2020. On-demand monitoring of construction projects through a game-like hybrid application of BIM and machine learning. *Automation in Construction*, 110, p.103012.

Salom, J., Tamm, M., Andresen, I., Cali, D., Magyari, Á., Bukovszki, V., Balázs, R., Dorizas, P.V., Toth, Z., Zuhair, S. and Mafé, C., 2021. An evaluation framework for sustainable plus energy neighbourhoods: Moving beyond the traditional building energy assessment. *Energies*, 14(14), p.4314.

Thornber, K., Verner-Jeffreys, D., Hinchliffe, S., Rahman, M.M., Bass, D. and Tyler, C.R., 2020. Evaluating antimicrobial resistance in the global shrimp industry. *Reviews in aquaculture*, 12(2), pp.966-986.

Usuga Cadavid, J.P., Lamouri, S., Grabot, B., Pellerin, R. and Fortin, A., 2020. Machine learning applied in production planning and control: a state-of-the-art in the era of industry 4.0. *Journal of Intelligent Manufacturing*, 31(6), pp.1531-1558.

Wamba-Taguimdje, S.L., Wamba, S.F., Kamdjoug, J.R.K. and Wanko, C.E.T., 2020. Influence of artificial intelligence (AI) on firm performance: the business value of AI-based transformation projects. *Business Process Management Journal*, 26(7), pp.1893-1924.

