BDM-3023 Project Management for Analytics – Course Introduction

Lambton College In Mississauga

Course Description

Students are introduced to best practices, approaches, and tools for managing and delivering analytics, predictive analyses, and data projects. They will assess approaches around estimation, scoping, planning, data cleaning, data migration, data quality, and risk mitigation. Students will recommend how to best communicate their assessments to business stakeholders.

The term project will provide the students an opportunity to incorporate and apply project management skills to solve real-world problems.

Course Objectives and Learning Outcomes

1. **Describe best practices for end-to-end analysis in data project management**

1.1 Define project management and how it differs from program management

1.2 Summarize project management and it's various approaches, frameworks, and phases

1.3 Explain business needs, project needs, project constraints, and typical project challenges

1.4 Summarize attributes of effective project management software tools for various sized projects and project methodologies

1.5 Summarize predictive analysis and data science with supporting examples

Course Objectives and Learning Outcomes

2. Assess the effectiveness of common approaches to business requirements, estimation, scoping, and planning during project execution

2.1 Compare knowledge areas, processes, and deliverables between different project management frameworks

2.2 Compare similarities and differences between the needs of data projects, software projects, and business projects

2.3 Combine multiple project management frameworks to deliver data projects according to different kinds of project managers and stakeholders

Course Objectives and Learning Outcomes

2. Assess the effectiveness of common approaches to business requirements, estimation, scoping, and planning during project execution

2.4 Assess estimates, scope, schedule, and budgets for a data project

2.5 Assess changes and their potential impact on requirements, scope, schedule, and cost

2.6 Produce a preliminary plan and a targeted approach for a data project

2.7 Assess the effectiveness of business requirements to stop scope creep in a data project

Course Objectives and Learning Outcomes

3. Describe the impact of common approaches to data cleaning, data migration, and data quality on project scheduling

3.1 Explain predictive analysis, ETL, and data science practices in a data project

3.2 Apply data science activities and practices in a data project

3.3 Assess data science activities and project management practices in a data project

3.4 Assess the impacts of data from risk management, change management, and cost management

Course Objectives and Learning Outcomes

4. Apply standard strategies for improvement and mitigating risks in project management

4.1 Choose business improvement and change management practices best suited to improve business processes and project management processes

4.2 Explain the traditional impediments and risks in data projects

4.3 Create communication management, change management and risk management approaches for a data project

4.4 Assess changes, risks and their potential impact on scope, schedule, and cost

4.5 Assess the effectiveness of change management, risk management, communication management, and cost management in managing a data project

4.6 Defend communication management, change management and risk management approaches for a data project

Course Objectives and Learning Outcomes

5. Produce project reports, business reports and status reports using standard methods

5.1 Assess templates and project deliverables for an effective data project

5.2 Produce reports to support communication management with stakeholders

5.3 Produce visualizations for reports to increase effectiveness of communication management with each stakeholder group

5.4 Assess effectiveness of reports to address stakeholder questions and concerns

5.5 Produce a project accounting report for an executive stakeholder group

5.6 Defend the progress of a data project using project accounting

Course Objectives and Learning Outcomes

6. Assess the effectiveness of project plans according to best practices and project/ business needs

6.1 Summarize the traditional scenarios that take a data project off schedule

6.2 Apply change management and risk management practices to keep a data project on schedule

6.3 Assess the effectiveness of quality and testing activities for a data project

6.4 Apply compression, fast-tracking, and crashing practices to keep a data project on schedule

6.5 Defend practices to stakeholders for keeping a data project on schedule and under budget

Student Evaluation

Student Evaluation

Assignments (Individual) – 60%

3 In-Class Assignments and 3 Quizzes @ 10% each

Project Report & Presentation (Group) – 30%

Every group member must participate in the presentation to be eligible for presentation marks (5%).

LinkedIn Learning – 10%

5 LinkedIn Learning courses @ 2% each, Asynchronous Class

(Certificate of Completion **must** be uploaded on Moodle to be eligible for marks)
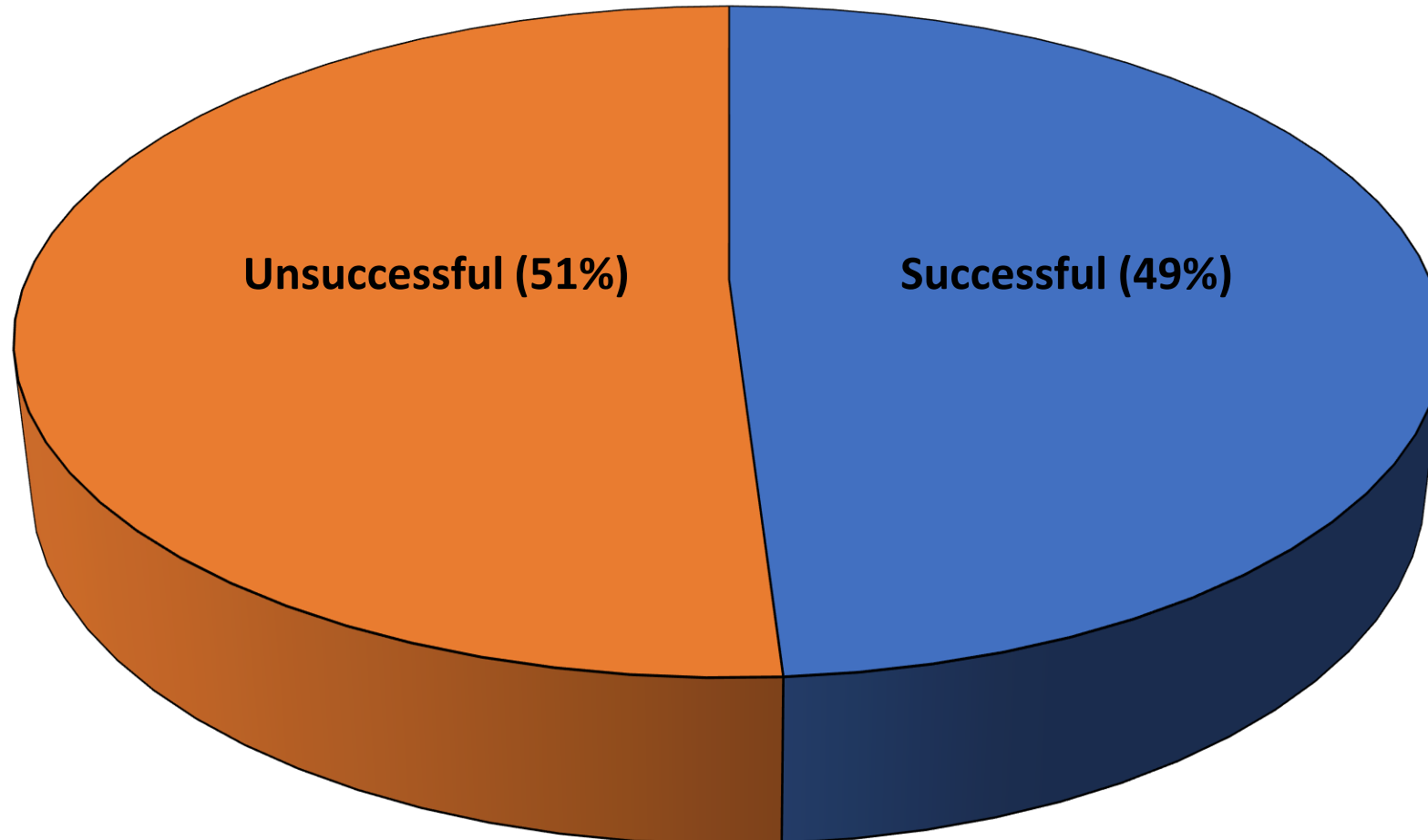
Learning Resources

Learning Resources

Suggested Reading

- Schwalbe, Kathy, Information Technology Project Management, 9th edition , Cengage Learning Inc.
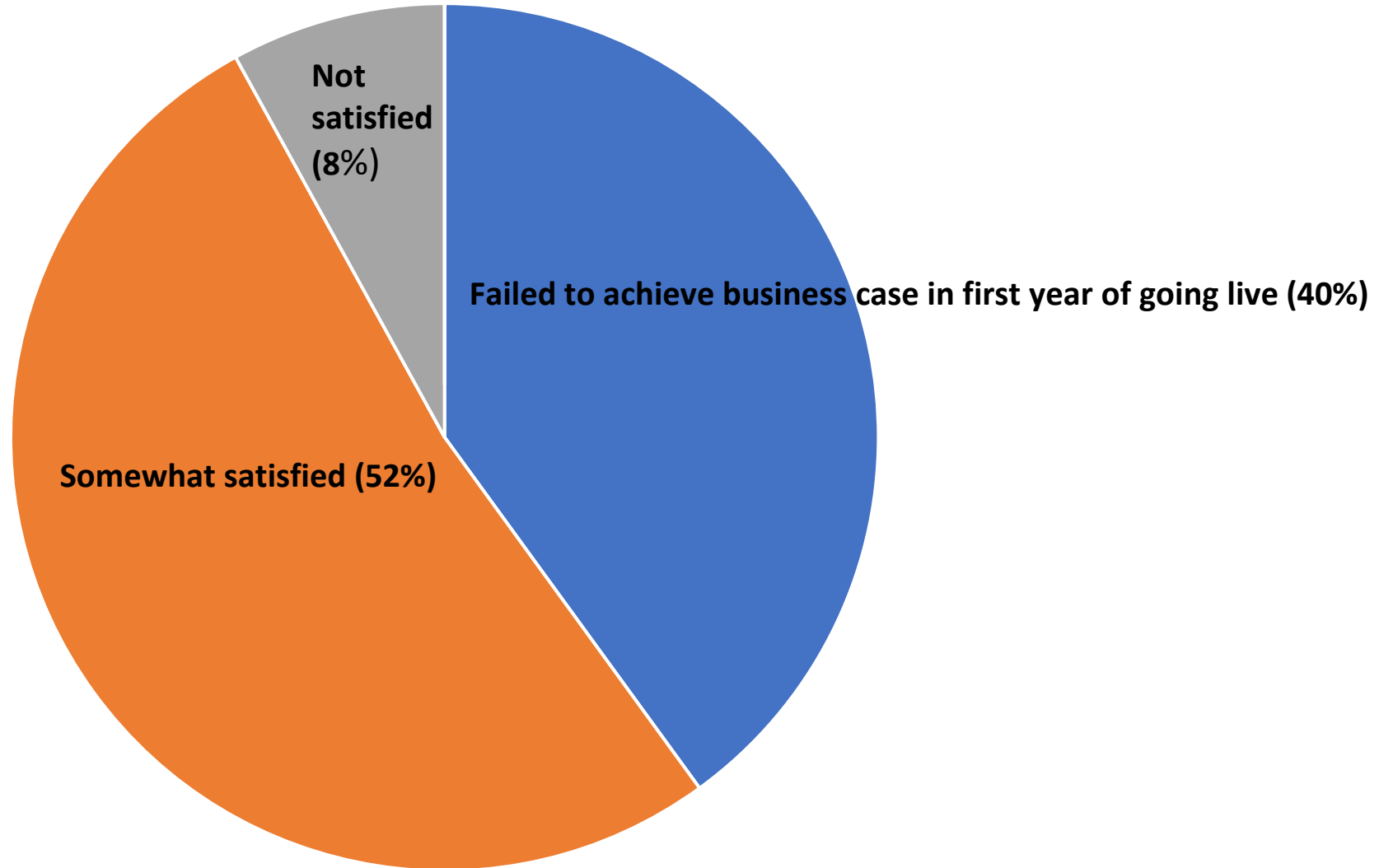
Supplemental

- Project Management Institute (2021), A Guide to the Project Management Body of Knowledge (PMBOK® Guide), (7th Edition), Project Management Institute.

- Project Management Institute, Agile Practice Guide (2017)

Enterprise Resource Planning (ERP) Implementation (multiple industries such as information technology, finance, utilities and healthcare) – North America
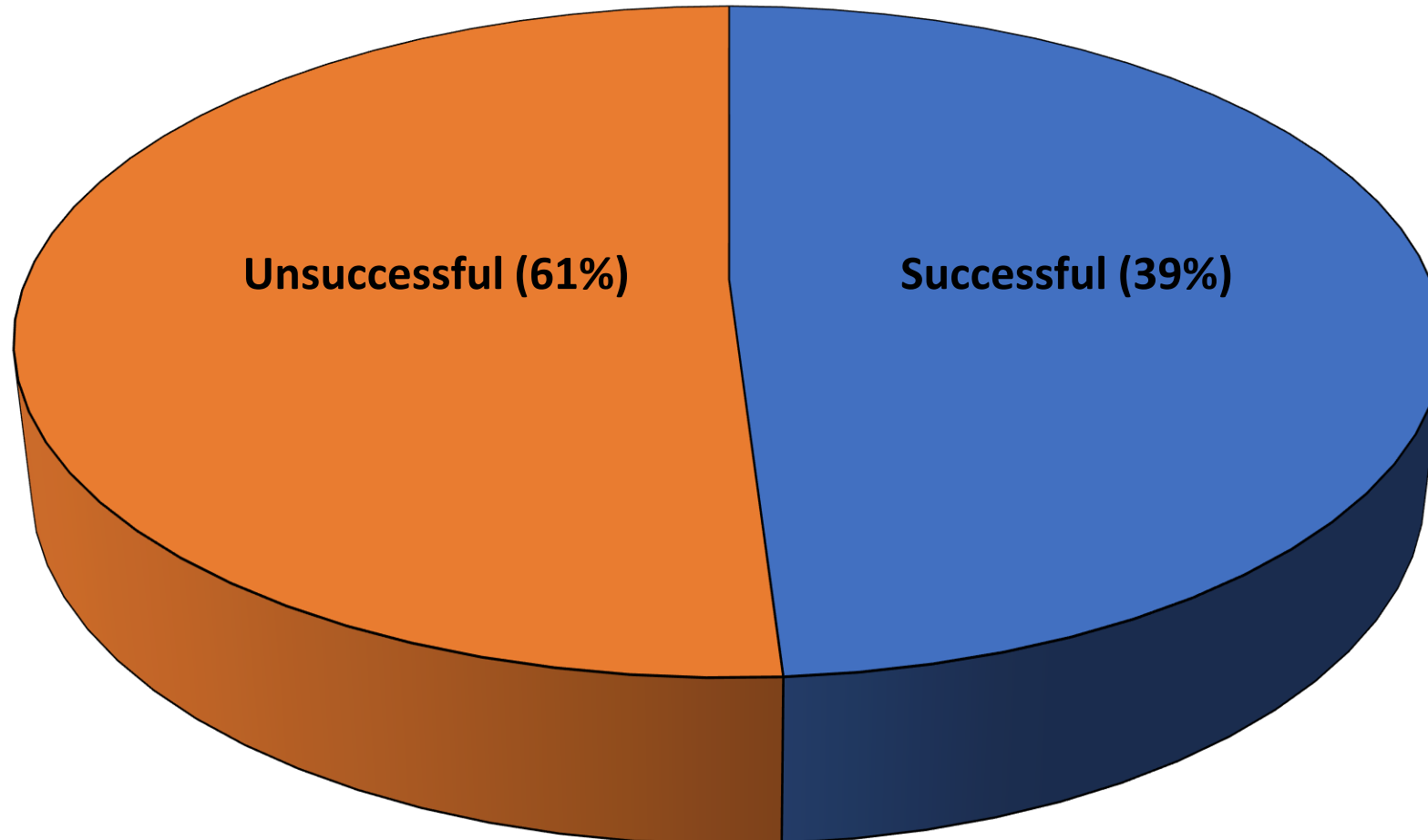
Unsuccessful (51%)

Successful (49%)

Enterprise Resource Planning (ERP) Implementation

117 Companies that implemented ERP

Failed to achieve business case in first year of going live (40%)

Somewhat satisfied (52%)

Not satisfied (8%)

The KPMG Canada Survey – Respondents from Canada's leading 1,450 private and public sector organizations said about their projects

IT Executives from banking, securities, manufacturing, retail and wholesale, healthcare, insurance, services, local and federal organization who participated in the survey

Projects completed on-time but over budget (11%)

Project completed on-time and on-budget (9%)

Cost overrun of up to 180% of the original estimate (53%)

Projects that were canceled before completion (27%)