Analyzing Operational Efficiency in Consultancy Firm

A Mid-Term report for the BDM capstone Project

Submitted by

Name: Rajasi Deshpande

Roll number: 23f2002389



IITM Online BS Degree Program,
Indian Institute of Technology, Madras, Chennai
Tamil Nadu, India, 600036

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1 Executive Summary

The Splendid Solutions is a consultancy firm offering services in accounts writing, tax consulting, auditing, loan documentation, and business support. Despite its diverse service portfolio, the firm faces recurring challenges such as delays in compliance filings, difficulty in prioritizing services during seasonal peaks, irregular fee collections affecting cash flow, and limited visibility in the unorganized sector.

To analyse these issues, data was collected and cleaned by handling missing values, standardizing formats, removing irrelevant fields, splitting combined records, and creating derived measures such as delay days. This structured dataset was then used for analysis.

Descriptive statistics established a baseline of performance, highlighting average delays and irregular payment patterns. Time series analysis revealed seasonal workload spikes, with delays concentrated in Q1, Q3, and Q4 due to statutory deadlines. Correlation analysis between payment status and service type showed that a considerable share of dues remain pending, particularly in B2C services like tax filing and loan documentation. To address client acquisition concerns, a survey was also conducted to capture public opinion on the firm's digital presence. The responses indicated low awareness and limited engagement, emphasizing the need for improved outreach through social media and website upgrades.

The analysis highlights that enhancing compliance efficiency, improving cash flow management, and strengthening digital visibility are essential for achieving sustainable operational growth.

2 Proof of Originality







Video Link: <u>Interaction with the partner of the firm</u>

Letter: <u>Letter from the firm</u>

3 Metadata

In the workbook, there are 5 worksheets namely:

Filing Status Log 23-24 Filing Status Log 24-25 List of Debtors Client Listing Fixed Expenses

- Filing Status Log 23-24: Tracks internal due dates, external due dates that is the deadline of government and actual filing dates for GSTR1, GSTR-3B, TDS used to analyze delays for financial year 2023-24 (1st April 2023 to 31st March 2024)
- **Filing Status Log 24-24:** Tracks internal due dates, external due dates that is the deadline of government and actual filing dates for GSTR1, GSTR-3B, TDS used to analyze delays for the financial year 2024-25 (1st April 2024 to 31st March 2025)

- **List of Debtors:** Contains records of clients with pending or partial payments along with status and outstanding amounts.
- Client Listing: This sheet holds the service rendered and annual receipts by clients.
- **Fixed Expenses:** This sheet contains annual expenses of the company.

1. List of Debtors Worksheet



The metadata of the above mentioned column headers are explained as follows:

- **Sr. No.**: Serial number assigned to each debtor entry for reference and indexing.
- Name of Client: Full name of the client/business who availed the service and has pending or recorded payment.
- Amount Outstanding: Total unpaid amount to be collected from the client
- **F.Y.**: Financial year in which the service was billed.
- For Month: Specific month the service was billed.
- **Service Provided**: Description of the professional service delivered.
- Payment Received (Rs): Amount received from the client, if any, against the service billed.
- **Status**: Current status of payment 'Received', 'Part payment received', or 'Not received'.
- **Comment**: Additional remarks including follow-up history, split payments, or clarifications.

2. Client Listing Worksheet



The metadata of the above mentioned column headers are explained as follows:

- **Clients**: Name of individual or organizational clients who have availed consultancy services.
- **Service Rendered**: Type of professional service provided to the client.
- **Annual Receipts**: Total amount received from the client during the financial year for the specified service.

(In this worksheet clients for financial year (FY) 23-24 and 24-25 are present as separate table)

3. Filing Status Log 23-24 and Filing Status Log 24-25 Worksheets

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Client	Name	Filing Type	Filing Month	Internal Due Date		Actual Date of Submission/Filing	Delay (Days)	Reason for Delay
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The metadata of the above mentioned column headers are explained as follows:

- **Client Name**: Name of the business or organization for whom the compliance service was provided.
- **Filing Type**: Type of return filled.
- **Filing Month**: The month for which the return pertains.
- **Internal Due Date**: The firm's internal deadline to file the return, typically set earlier than the statutory deadline.
- External due date/deadline: It is the government deadline.
- Actual Filing Date of Submission/Filing: The date on which the return was actually filed.
- **Delay (Days)**: Number of days between internal due date and actual filing date.
- **Reason for Delay**: Primary reason for delay in filing, based on internal tracking or client follow-up.

4. Fixed Expenses Worksheet

	_	_		
Expenses	Cost (Rs) Monthly	Annual Expenditure		

The metadata of the above mentioned column headers are explained as follows:

- **Expenses**: Specifies the type or category of recurring operational cost.
- Cost (Rs) Monthly: Indicates the fixed monthly amount paid for each listed expenses.
- **Annual Expenditure**: Represents the total yearly cost, calculated as 12 times the monthly amount.

Link for the Project Data: **BDM Project Data**

4 Descriptive Statistics

Variable Name	Mean	Median	Mode	Min	Max	Variance	Standard Deviation	Sum	Count
Delay (Days) FY 23-24	122222222	1	1	0	3	0.57964258	0.761342616	176	144
Delay (Days) FY 24-25	1.55555556	2	2	0	3	0.402486402	0.634418161	224	144
Annual Receipts 23-24	28617.64706	12000	12000	1500	120000	1005985294	31717.27123	486500	17
Annual Receipts 24-25	39977.27273	21000	36000	1500	150000	2131945649	46172.99697	879500	22
Amount Outstanding	5539.453125	2500	2500	375	30000	45699222.32	6760.119993	354525	64
Annual Expenditure	55000	36000	IN/A	6000	144000	2972400000	54519.7212	330000	6

These statistics are calculated using Excel formulas like MAX, MIN, AVERAGE, MEDIAN, MODE, STDEV, VAR, COUNT on the relevant columns from different worksheets.

These variables were chosen because they directly reflect the operational issues highlighted in the problem statements as follows:

- For the issue of delays in compliance-related services like GST, TDS filings, I used the 'Delay (Days)' column from the Filing Status Logs of FY 2023-24 and 2024-25. Analyzing this helped identify the frequency and severity of delays across months, giving insight into internal inefficiencies.
- To explore the lack of service prioritization and seasonal planning, I worked on the 'Annual Receipts' column from the Client Listing sheet. This data shows which services generate more revenue and helps the firm understand where to focus its efforts during

peak periods.

- For the issue of cash flow problems due to delayed fee collection, I relied on the 'Amount
 Outstanding' column from the List of Debtors sheet. This allowed me to quantify how
 much money remains unpaid and identify patterns in payment delays.
- 'Annual Expenditure' from the Fixed Expenses sheet was used to understand the firm's fixed cost commitments and how well its income supports recurring operational costs.

5 Detailed Explanation of Analysis Process & Method

1) Data cleaning process

The raw data collected from the firm was initially unstructured and inconsistent, making it unsuitable for direct analysis. To ensure that the dataset becomes reliable and usable, I plan to perform a systematic data cleaning process, followed by structured analysis aligned with the project objectives.

Backdated & Irrelevant Fields Handling: Some records were backdated and dates were
confirmed orally from the firm owner, which I updated in the dataset to avoid gaps.
Fields like Voucher Number and Voucher on Name were removed as they were
administrative and not relevant for the analysis.

Sr. No.	Name of the Client	Voucher No.	Amount outstanding	For Month	Service Provided	Voucher on name	Payment received (Rs.)	Payment Method	Status	Comment
į.	Vrunda Apte		12,000.00	Backdaled	Backdated - ITR fees	Prasad			Not re *	
2	Pankaj Agate	030/22-23	12,000.00	Backdaled	Backdated - ITR fees	Prasad			Receiv*	

Splitting Combined Records: Some entries contained multiple months in a single row.
 Keeping them together made it difficult to analyze service frequency or delays monthwise. To address this, I split such combined records into separate rows for each month while retaining the same client and service details. This ensures consistency and supports accurate trend and time-series analysis.

40	Khadikar	Topiagean au	2 002 05	July, Aug. Sept		TPC	2 000 00	A	-	25/10/2023 - Received cheque number 011713
10	Power Services	155/000/23-24	3,000.00	2023	tees	TSS	3,000.00	Cheque	Recev	IDBI Bank for Rs. 3504

• Calculating Delay Days: Simply comparing dates was not enough to measure efficiency. To capture the impact of late filings, I created a derived column "Delay (Days)" by subtracting the scheduled due date from the actual filing date. This standardized measure allows for consistent comparison across services and clients, and highlights recurring

bottlenecks.

Client Name	Filing Type	Filing Month	Internal Due Date	External due date/deadline	Actual Date of Submission/Filing	Delay (Days)	Reason for Delay
Khadilkar Power							Waiting for sales
Services	GSTR-1	Sep-23	08-10-2023	11-10-2023	11-10-2023	=FZ-D2	invoices

2) Descriptive analysis

As already done in the descriptive statistics, I summarized delay days, receipts, and outstanding payments to establish a baseline. This step was important because it quantified average performance (through mean and median) and highlighted variability (through variance and standard deviation). The purpose was not just to describe the data, but to understand where inconsistencies exist and how they affect compliance and cash flow. These insights provided the foundation for applying time series and correlation analysis.

3) Time series analysis

For Problem 1 (Compliance delays) and Problem 2 (Service prioritization and capacity planning), I applied time-series analysis on the firm's records for FY 2023–24 and FY 2024–25. Quarterly aggregates of delay days were plotted to capture seasonal variations in workload. This method was chosen because compliance activities are concentrated around certain deadlines, leading to uneven distribution of tasks.

By analyzing quarterly delays alongside filing types, I was able to see which services contribute the most during peak periods. This directly links to the issue of capacity planning, since delays increase when the same limited staff is allocated across multiple high-volume services. Thus, time-series analysis not only explained when delays occur but also why resource allocation decisions need to be restructured for peak months.

4) Corelation analysis

To address Problem 3: Delayed fee collections and cash flow issues, I conducted correlation-style analysis using pivot tables and graphs. The first step was to analyze payment status against the count of clients. This revealed how many clients fall into categories such as "Received," "Partially Received," or "Not Received." The reason for using this method was to quantify the scale of delayed collections and highlight client behavior's patterns.

Next, I studied the relationship between services provided and outstanding amounts. This was necessary to identify which service categories are most prone to payment delays. This analysis explains why cash flow issues are recurring, as a few service categories contribute disproportionately to delays.

5) Survey-Based Analysis on Digital Reach and Perception

To better understand the firm's digital visibility and audience perception, I have made a Google Form for survey, conducted targeting potential clients and general users. The objective was to gather honest feedback on the firm's official website, LinkedIn, and Instagram presence, along with suggestions for improvement. I am attaching the google form link to show which questions I have asked people to fill and also the response sheet link to understand what people's opinion on it.

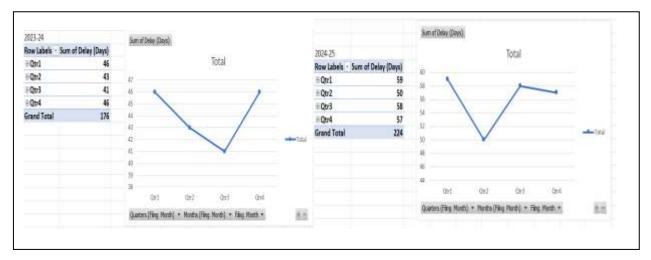
Google Form Link

Response Sheet Link

6 Results and Findings

The insights drawn from the analysis of the data are the following:

1) In this analysis, quarterly delay days for FY 2023–24 and FY 2024–25 were compared to study how filing delays vary across different quarters, to identify peak workload periods that create bottlenecks and to provide evidence for better resource allocation and scheduling decisions in the firm



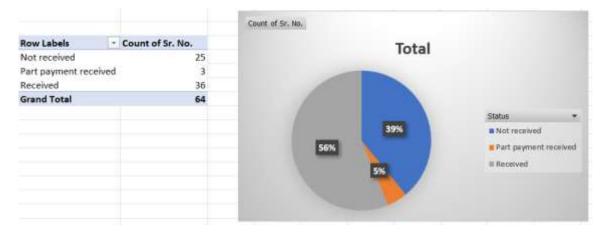
Trends and interpretations:

- Q1 shows higher delays, reflecting filing pressure at the start of the year.
- Q2 has the lowest delays, indicating a lighter workload and backlog clearance.
- Q3 and Q4 delays rise again due to half-yearly and annual compliance deadlines.

• FY 2024–25 delays are consistently higher than FY 2023–24, showing an upward shift in filing backlogs.

Reason for observed trends:

- Q1 Delays: Fresh filings, client onboarding, and prior year adjustments.
- Q2 Dip: Fewer deadlines and scope to clear pending work.
- Q3 Delays: Increased workload from half-yearly compliance obligations.
- Q4 Delays: Year-end closing, tax filings, and annual statutory deadlines.
- Overall Increase in FY 2024–25: Rising service demand exceeding resource capacity, requiring better planning and allocation.
- 2) In this analysis, payment status was compared with the count of clients to identify how many have fully paid, partially paid, or not paid. Since cash flow is a major challenge, this helps highlight client payment behavior and the scale of delayed collections.

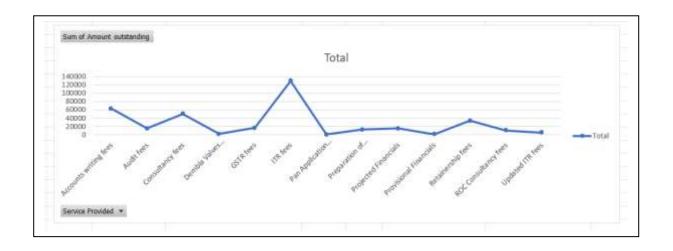


Trends and Interpretation:

- Received (56%): A little more than half of the payments have been successfully collected (36 out of 64). This is a positive sign, but it also shows that a significant portion is still pending.
- Not Received (39%): A large share of clients (25 out of 64) have not made any
 payment. This indicates collection delays and highlights the need for stronger
 follow-up.
- Part Payment Received (5%): Very few clients (3 out of 64) have made partial payments, suggesting that while they may intend to pay, settlements are incomplete.

Reason for observed trends:

- B2C clients often delay payments due to financial constraints after service delivery.
- Lack of automated reminders or strict follow-up mechanisms contributes to overdue payments.
- Post-service billing categories like tax filing and loan documentation makes collections harder to enforce
- 3) I analyzed the outstanding amounts for various services to identify which services have the highest pending amounts, to prioritize collection efforts based on outstanding dues and to understand payment patterns across different service categories.



Trends and interpretations:

- ITR Fees show the highest outstanding (₹1,30,000), indicating delayed payments or higher billing in this service.
- Accounts Writing (₹63,250) and Consultancy Fees (₹50,000) also form major portions of the dues.
- Moderate balances appear in Retainership, GSTR, and Audit services.
- Minimal dues exist in Pan Application, Updated ITR, and Provisional Financials, showing these are mostly low-value, one-time services.

Reason for observed trends:

- High outstanding in ITR Fees: Filing of income tax returns often involves bulk clients around deadlines. Since billing amounts are high and payments may be deferred, this leads to significant pending dues.
- Accounts Writing and Consultancy Fees: These are recurring, long-term services.
 Clients may delay payments as these are continuous engagements rather than one-time tasks.
- Moderate dues in Retainership, GSTR, and Audit Fees: These services are periodic (monthly/quarterly/annual), so dues accumulate but not as heavily as ITR or consultancy.
- Minimal dues in Pan Application, Updated ITR, and Provisional Financials:
 These are low-value, one-time compliance services, so payments are usually made upfront or settled quickly, leaving very little outstanding.