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Developing a Simplified Marketing Dashboard for SMEs in Pakistan



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DEDICATION

This work is dedicated to our parents, the people who believed in us long before we believed in ourselves. Through every late night and every moment of self-doubt, it was your prayers and quiet confidence that kept us going. Whatever we have achieved here belongs, in large part, to you.

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EXECUTIVE SUMMARY

Pakistan has over 7 million Small and Medium Enterprises. They employ millions of people, drive local production, and form the backbone of the economy. Yet walk into any of these businesses and ask the owner how their Facebook campaign performed last month, or what their customer engagement rate looks like across platforms, and most will not have a clear answer. Not because they are not working hard, but because the tools that exist to answer those questions were simply not built with them in mind.

This project was built around that problem. Our goal was to design and develop a simplified marketing dashboard that Pakistani SME owners can actually use without needing a data analyst, a large budget, or a technical background.

To get there, we started by understanding the landscape. We reviewed existing literature on digital marketing, technology adoption, and dashboard design. We surveyed SME owners and managers about their current practices and frustrations. And we studied the tools that already exist to understand where they fall short for smaller businesses.

What we built is a React-based web application with five modules: a Dashboard Overview showing top-level business performance, a Campaigns module for tracking individual marketing efforts, an Engagement module for social media metrics, a Sales module for revenue and order analysis, and a Reports module for generating summaries. The interface is clean, visual, and deliberately simple designed to surface the information that matters most without overwhelming the user.

Our findings confirmed what we suspected going in: SMEs in Pakistan are highly active on social media but struggle to make sense of the data those platforms generate. The solution they need is not more features it is clarity, affordability, and ease of use. That is what this dashboard is designed to deliver.

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List of Abbreviations

Abbreviation	Full Form
AI	Artificial Intelligence
API	Application Programming Interface
BI	Business Intelligence
CRM	Customer Relationship Management
CRUD	Create, Read, Update, Delete
CSS	Cascading Style Sheets
CSV	Comma-Separated Values
DBMS	Database Management System
DSS	Decision Support System
ERD	Entity Relationship Diagram
ERP	Enterprise Resource Planning
FYP	Final Year Project
GUI	Graphical User Interface
HTML	HyperText Markup Language
HTTP	HyperText Transfer Protocol
HTTPS	HyperText Transfer Protocol Secure
ICT	Information and Communication Technology
IT	Information Technology
JSON	JavaScript Object Notation
JS	JavaScript
KPI	Key Performance Indicator
LAN	Local Area Network
MIS	Management Information System
MVC	Model–View–Controller
MySQL	My Structured Query Language
PBS	Pakistan Bureau of Statistics
PDF	Portable Document Format
React	React JavaScript Library
REST	Representational State Transfer

Abbreviation	Full Form
ROI	Return on Investment
SaaS	Software as a Service
SDLC	Software Development Life Cycle
SEO	Search Engine Optimization
SME	Small and Medium Enterprise
SQL	Structured Query Language
TAM	Technology Acceptance Model
TOE	Technology–Organization–Environment Framework
TS	TypeScript
UI	User Interface
URL	Uniform Resource Locator
UTAUT	Unified Theory of Acceptance and Use of Technology
UX	User Experience
Vite	Next Generation Frontend Build Tool
WAN	Wide Area Network