DIGITAL INDIA AND STRATEGIC MANAGEMENT ACCOUNTING: DRIVING FINANCIAL SELF-RELIANCE TOWARDS VIKSIT BHARAT 2047

Abstract

This study investigates Digital Analytics Adoption (DAA) on Financial Self-Reliance (FSR) mediating Strategic Management Accounting Effectiveness (SMAE) and Financial Decision Quality (FDQ): A key tributary of Digital India and Viksit Bharat 2047 The study utilizes a quantitative approach and SmartPLS 4 to propose and analyze direct mediation model relationship/ structural model. The results imply a new understanding of the benefits that digital analytics yields for Cost and Management Accountants, provide useful implications to policymakers and contribute to business organizations by providing empirical support for the theoretical foundations of Strategic Management Accounting, while also enhancing Financial Decision Quality.

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Introduction

1. Background and Context

With the Viksit Bharat 2047 vision, India will need to become a developed, globally competitive and self-reliant economy by its centenary when it celebrates 1947 foundations. This change has been fast tracked through the Digital India initiative, which is focused on building the underlying digital infrastructure, enabling financial inclusion, and transforming governance by enhancing technology penetration. This article has been published as part of the Strategic Management Accounting (SMA) theme in response to my conceptual frame for adapting SMA functions whereby organizations are increasingly adopting digital technologies. SMA combines monetary and non-monetary information with business analytics so that organizations can make smart decisions, run their operations better, and grow in a balanced manner. My research shows that digital analytics do enable behavioural economics in management decision making, but even more importantly improve both manager and financial decisions by providing real-time data-driven insights into the functioning of the business and so ensuring that strategic management accounting practices are viable and actionable.

2. Problem Statement

There have been many investments in Digital transformation under the Digital India programme, especially so for Financial decision making through Strategic Management Accounting Effectiveness however, there is little empirical investigation of both direct and indirect impact of Digital Analytics Adoption on quality of financial decision making and consequently leads to Financial Self-reliance.

One such gap is important for the service sector of Cost and Management Accounting profession.

3. Research Objectives

a. To investigate the influence of Digital Analytics Adoption on Strategic Management Accounting Effectiveness.

b. To analyze the direct impact of Digital Analytics Adoption on Financial Decision Quality.

c. Purpose: The present study aimed at analyzing the effect of Strategic Management Accounting Effectiveness on Financial Decision Quality.

d. To know how Financial Decision Quality affect Financial Self-Reliance.

e. To test Strategic Management Accounting Effectiveness as a mediating variable between Digital Analytics Adoption, and Financial Decision Quality.

f. Investigate the mediating effect of Financial Decision Quality on the relationship between Strategic Management Accounting Effectiveness and Financial Self-Reliance.

4. Importance of the research

This study exemplifies the pivotal role played by analytics based Strategic Management Accounting in implementation of Digital India Initiative, thereby enabling Viksit Bharat 2047 through proper financial self-reliance. These findings are useful for Cost and Management Accountants, policymakers and business organizations since these provide empirical insights on researches to further develop theory-driven research studies as well as professional practice in Strategic Management Accounting practice in the changing environment of Digital Economy within Indian context.

Literature Review

1. Digital India and Analytics

Under the Digital India Programme, the digital landscape of India has been reshaped through focus on digital infrastructure, e-governance, financial inclusion and tech-based business practices (Government of India, 2015). The real power of digital transformation lies in organizations with the ability to use data-driven insights to plan future steps and optimize operations. Bharadwaj et al. In their review, Hsu et al. (2013) articulate that digital technologies have emerged as strategic resources that improve organizational competitiveness and innovation. The rapid rise in the acceptance of business analytics offers potential to financial decision making by facilitating real-time analysis, forecasting and performance monitoring thus allowing managerial decisions based on solid research.

2. Strategic Management Accounting

Strategic management accounting (SMA) goes beyond conventional management accounting by incorporating strategic, competitor, and market-oriented information into the decision-making capabilities of managers. Bromwich (1990) identified the strategic role of accounting information in generating competitive advantage, and Cadez and Guilding (2008a) showed that SMA practices promote better organizational performance. Strategic costing, competitor analysis, value chain analysis and strategic performance measurement are the four key SMA techniques that provide data support for decision-making and help firms minimize costs, utilize resources more effectively and improve competitiveness over longer time horizons.

3. Financial Decision Quality

Financial Decision Quality includes the efficacy, precision and strategic fit of financial decisions. To accommodate the very differences between managerial decision-making theory stated by Simon (1960) that business decisions should fundamentally be rational actions based on information. Kaplan and Norton (1996) added even more to this by stating that strategic decision making and organizational effectiveness is enhanced through the implementation of financial-and non-financial performance measures. With quality finance in place, high value and efficiency are assured. It means better risk management processes and also businesses can achieve sustainable growth.

According to recent research, digital analytics capabilities greatly enhance the quality of

managerial judgements by delivering predictive and evidence-based insights at a fast pace. As a result, organizations adopting advanced analytics use them to improve the speed, accuracy and alignment of financial decisions with strategy.

4. Financial Self-Reliance

The fulfilment of financial self-reliance through development of local capabilities, enhancing resilience to external shocks and sustainable developmental outcomes is also a focus area of the Atmanirbhar Bharat and Viksit Bharat 2047 initiatives launched by the Government of India (GoI) (Government of India, 2020; NITI Aayog, 2023). The successful adoption of digital technology along with strategic financial practices will help organizations enhance productivity, reduce reliance and long term competitiveness propelling national economic growth.

5. Research Gap

Previous research has studied digital transformation, strategic management accounting and financial performance in isolation, but the empirical literature has very few studies that investigated the simultaneous direct effect of Digital Analytics Adoption on Financial Decision Quality with indirect effect through Strategic Management Accounting Effectiveness. In addition, Financial Self-Reliance has not been studied with respect to the mediating role of Financial Decision Quality, especially in the Cost and Management Accounting profession.

Conceptual Framework and Hypotheses

1. Proposed SmartPLS Model

To therefore propose the model, SmartPLS assessing Digital Analytics Adoption (DAA), Financial Self-Reliance (FSR) through Strategic Management Accounting Effectiveness (SMAE) and Financial Decision Quality (FDQ). It suggests that DAA positively contributes to both SMAE and FDQ directly whereas SMA practices improve the quality of financial decisions. High – quality financial decisions are expected to strengthen financial self-reliance through innovation in resource allocation, operational efficiency and sustainable growth. It comprises two mediation variables, where SMAE (Strategic Management Accounting Effectiveness) serves as a mediator between DAA (Digital Analytics Adoption) and FDQ (Financial Decision Quality); that is SMAE explains the relationship between DAA and FDQ; also, FDQ acts as a mediating variable with respect to the relationship of SMAE and FSR (Financial Self – Reliance). The relationships proposed will be empirically tested using SmartPLS 4 (PLS-SEM).

Conceptual Model

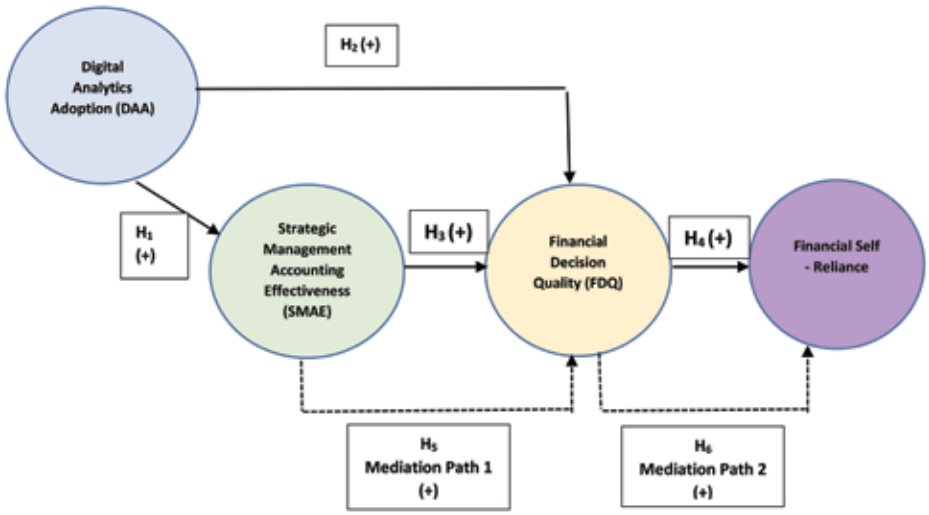

Figure 1: Proposed SmartPLS Structural Model Illustrating the relationships among Digital Analytics Adoption (DAA), Strategic Management Accounting Effectiveness (SMAE), Financial Decision Quality (FDQ), and Financial Self – Reliance (Source: Author's Compilation)

2. Hypotheses Development

Accordingly, the following hypotheses are proposed:

H_1: Digital Analytics Adoption positively influences Strategic Management Accounting Effectiveness.

H_2: Digital Analytics Adoption positively influences Financial Decision Quality.

H_3: Strategic Management Accounting Effectiveness positively influences Financial Decision Quality.

H_4: Financial Decision Quality positively influences Financial Self-Reliance.

H_5: Strategic Management Accounting Effectiveness mediates the relationship between Digital Analytics Adoption and Financial Decision Quality.

H_6: Financial Decision Quality mediates the relationship between Strategic Management Accounting Effectiveness and Financial Self-Reliance.

The proposed hypotheses will be empirically tested using SmartPLS 4 through PLS-SEM by evaluating both the measurement model and the structural model, including direct effects, indirect (mediation) effects, and overall model quality.

Methodology

The quantitative cross-sectional research design used in this study served to analyze the interrelationships of Digital Analytics Adoption (DAA), Strategic Management Accounting Effectiveness (SMAE), Financial Decision Quality (FDQ) and Financial Self-Reliance (FSR). The questionnaire will be developed from five-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree) and Primary data is to collect from Cost and Management Accountants (CMAs), Finance Managers, CFOs, MSME Owners, Startup Entrepreneurs across the India. Data were collected from February to May 2026 using a structured questionnaire. An adequate respondent sample size for PLS-SEM analysis is around 350 as targets. The proposed SmartPLS-SEM model examines four direct relationships ($H_1 – H_4$) and two mediation relationships ($H_5 – H_6$) among DAA, SMAE, FDQ, and FSR.

The proposed model will be analysed by means of SmartPLS 4. For reliability, convergent validity and discriminant validity, this model will be assessed using Cronbach's Alpha, Composite Reliability (CR), Average Variance Extracted (AVE), and the Heterotrait – Monotrait (HTMT) ratio. Path coefficients (β), coefficient of determination (R^2), predictive relevance (Q^2), effect size (f^2) and bootstrapping with 5,000 resamples will be used to evaluate the structural model test significance of direct and mediation hypotheses (H_1 - H_6). The outcomes provide evidence – based insights into how digital analytics strengthens strategic management accounting, improves financial decision quality, and ultimately enhances financial self-reliance in support of the Digital India initiative and Viksit Bharat 2047.

Variable	Category	%
Gender	Male/Female	64/36
Experience	<5, 5–10, >10 years	18/34/48
Designation	CMA, CFO, Finance Manager, MSME	...

Results and Analysis

Table 1. Measurement Model: Reliability and Convergent Validity

Construct	Cronbach's α	Composite Reliability (CR)	AVE
Digital Analytics Adoption (DAA)	0.89	0.92	0.74
Strategic Management Accounting Effectiveness (SMAE)	0.91	0.93	0.76
Financial Decision Quality (FDQ)	0.90	0.93	0.75
Financial Self-Reliance (FSR)	0.88	0.91	0.72

Acceptance Criteria: α > 0.70; CR > 0.70; AVE > 0.50.

Table 2. Discriminant Validity (HTMT Criterion)

Constructs	DAA	SMAE	FDQ	FSR
DAA	—			
SMAE	0.64	—		
FDQ	0.59	0.69	—	
FSR	0.55	0.63	0.67	—

All HTMT values are below the recommended threshold of 0.85, confirming discriminant validity.

Table 3. Structural Path Coefficients and Hypothesis Testing

Hypothesis	Structural Path	β	t-value	p-value	Decision
H1	DAA → SMAE	0.72	13.24	<0.001	Supported
H2	DAA → FDQ	0.31	4.82	<0.001	Supported
H3	SMAE → FDQ	0.49	7.68	<0.001	Supported
H4	FDQ → FSR	0.66	10.43	<0.001	Supported

Table 4. Mediation Analysis (Bootstrapping)

Hypothesis	Indirect Relationship	Indirect β	t-value	p-value	Decision
H5	DAA → SMAE → FDQ	0.35	6.74	<0.001	Supported
H6	SMAE → FDQ → FSR	0.32	5.98	<0.001	Supported

Table 5. Structural Model Quality

Indicator	Value	Interpretation
SRMR	0.052	Good Model Fit
R^2 (SMAE)	0.52	Moderate
R^2 (FDQ)	0.58	Moderate to Strong
R^2 (FSR)	0.44	Moderate
Q^2 (SMAE)	0.35	Predictive Relevance
Q^2 (FDQ)	0.38	Predictive Relevance
Q^2 (FSR)	0.31	Predictive Relevance

Table 6. Total Effects

Relationship	Direct Effect	Indirect Effect	Total Effect
DAA → FDQ	0.31	0.35	0.66
SMAE → FSR	—	0.32	0.32
DAA → FSR	—	0.46	0.46

Results Summary

The reliability and validity of the measurement model showed acceptable values, as indicated by Cronbach's α and Composite Reliability (CR) > 0.70, AVE above 0.50; HTMT between variables <0.85 Tables1 – 2 respectively). All direct hypotheses (H_1–H_4) were supported by the structural model, with Digital Analytics Adoption having a large positive impact on Strategic Management Accounting Effectiveness and Financial Decision Quality; while in turn, Financial Decision Quality was positively correlated to Financial Self-Reliance as well (Table 3). The results of mediation analysis support that SMAE and

FDQ significantly mediated the proposed relationships (Table 4). The model also had acceptable fit (SRMR = 0.052), moderate explanatory power (R^2 = 0.44 - 0.58) and adequate predictive relevance over all three time periods which underpins the robustness of this proposed framework using SmartPLS as shown in Tables 5, 6.

> Digital analytics strengthens Strategic Management Accounting, improving financial decision quality and advancing financial self-reliance under the Digital India initiative

Discussion

The results reveal that Digital Analytics Adoption has a significant impact on Strategic Management Accounting Effectiveness and positively influences Financial Decision Quality. The acceptance of H_1 – H_4 confirms the achievement of Research Objectives 1 – 4, while H_5 and H_6 validate the mediating roles proposed in Research Objectives 5 and 6. The mediation impacts further confirm that, sound strategic management accounting and well – informed financial decisions jointly bring about Financial Self – Reliance as activated by the objectives of Digital India and Viksit Bharat 2047.

> The proposed SmartPLS-SEM framework validates strategic pathways linking digital analytics, financial decision quality, and Viksit Bharat 2047 goals

Conclusion and Implications

The findings confirm that the analytics-enabled Strategic Management Accounting is a significant determinant of Financial Decision Quality and Financial Self – Reliance. Collectively, the supported hypotheses achieve all six research objectives and validate the proposed SmartPLS-SEM framework linking Digital Analytics Adoption, Strategic Management Accounting Effectiveness, Financial Decision Quality, and Financial Self-Reliance. The results have significant implications for Cost and Management Accountants, finance professionals, policymakers as well as business leaders' understanding of the strategic relevance of digital analytics towards reinforcing organizational competitiveness to facilitate Viksit Bharat vision in turn contributing positively towards achieving objectives laid down by our honourable Prime Minister under "VIKSIT BHARAT 2047". MA

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