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Impact of Budgeting, Cash Flow and Working Capital Management on Startup Survival in India

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Abstract

Financial management is crucial for the survival and growth of startups, as they have limited resources and need to manage them effectively. The present study investigates the role of budgeting, cash flow management, working capital management and its effect on survival of start-ups in India. The primary data were gathered from 92 respondents through a structured questionnaire comprising of demographic questions, statements and questions on financial priorities on the Likert scale. Descriptive statistics, chi-square tests, one-way ANOVA and regression analysis were used for the data analysis. The results show that budgeting, cash flow management and working capital management were found to be important to the survival of the start-ups with an average rating of 3.94 to 4.11 on a five point scale. Regression analysis revealed that budgeting and cash flow management demonstrated significant relationship with perceived startup survival and working capital management had significant relationship when tested individually but it did not have a strong relationship when tested with the other financial practices. The study also revealed that there were differences between the students and the non-students with respect to their financial priorities and no significant differences were identified between the various major demographic groups with respect to their overall perceptions. In conclusion, the study underscores the significance of a budget-based approach, proper cash flow management, and appropriate working capital management for a start-up to survive in India. The results offer valuable information to startup founders and aspiring entrepreneurs for enhancing their financial management strategies.

Keywords: startup survival, budgeting, cash flow management, working capital management, financial management, India

1.Introduction

It is generally believed that startups are the drivers of innovation, jobs and economic revitalization, but many fail during their formative years. According to the research of Indian startups, the financial difficulties and depleting capital are significant factors behind failure, apart from other factors such as shortcomings in the business model, marketing, operations and management (Chaudhari & Mohanty, 2025; Khairajani, Thakkar & Shah, 2024; Goswami, Murti & Dwivedi, 2023). This is also confirmed by other studies in the different economies that highlight how financial problems affect the growth and survival of young companies (Stucki, 2014; Ferrucci, Guida & Meliciani, 2021; Castaldo, Pittiglio, Reganati & Sarno, 2023).

The majority of this evidence relates to the external funding – the ability of the startup to secure bank credit, venture capital or other forms of funding. Much less has been done on the internal financial processes that govern how well a startup is doing with the money already in hand. Budgeting establishes a spending plan and priorities before and during the operations. Managing cash flow indicates that cash inflows and outflows are timed to suit the needs of the venture to be able to pay its debts. Working capital management deals with the management of receivables, payables and inventory to ensure that cash is not locked up unnecessarily in day-to-day operations. If any of these is wrong it could spell the death of a profitable startup.

Also, previous studies have suggested that more quantitative research needs to be done on budgeting and cash flow issues (Goswami et al., 2023), and on the impact of budgeting, cash flow and WCP on business survival (Wise, 2013; Idris, 2024). It analyses primary survey data (92 respondents) and uses statistical tests (chi-square, ANOVA and linear regression, with Excel) to determine the distance between each of the three practices and the perceived survival of start-ups; it decodes the evidence and makes practice recommendations for founders and managers.

2. Review of Literature

S. Navaneetha Krishnan, L. S. Ganesh & C. Rajendran (2021):This study uncovered eight important risk factors that are known to be the cause of failure for innovative Indian startups and associated them to the management accounting tools. It serenoised and shed light on the function of accounting practices in startup risk managing. Additional longitudinal studies are needed to identify what tools are effective in preventing failure.

Nayanjyoti Goswami, Ashutosh Bishnu Murti & Rohit Dwivedi (2023):One of the key findings of the study was that financing challenges and cash-flow constraints are key factors that prevent start-ups in India. Problems in marketing, business model and operation and management were also discovered. The need was put forward for further quantitative work to investigate budgeting and cash-flow issues.

Ajay Kumar Garg (2019):The study analysed the challenge to get the long-term finance from banks/institutions from the start-up failures in Delhi and NCR. It was demonstrated that financial issues negatively had an impact on profitability, expansion and general performance. There's a need for more, detailed research into financial-management techniques.

Dharmendra Khairajani, Pooja Thakkar & Disha Shah (2024): Low funding levels, rapid cash burn, weak business models, weak understanding of the market, and business management issues were the significant reasons behind the poor success rate of businesses. It put India's startup market on the spotlight for its financial woes. More statistical literature exists; financial-management practices need to be further researched.

Meghasham Chaudhari & Smrutiranjan Mohanty (T2025): Financial mismanagement and governance issues were found to be important factors behind Indian startups' failure. It analyzed financial, strategic and eco-system related issues. More in-depth studies with real data could confirm these results.

Tobias Stucki (2014):The study revealed that the financial factors have impact on startup performance, profitability and survival. It highlighted the importance of financial resources for young firms. However, some constraints of detail, for example in the details of budgeting and working-capital management, were not explored in level of detail.

Edoardo Ferrucci, Roberto Guida & Valentina Meliciani (2021): Access to finance is found to be a key factor in growth and survival of innovative start-ups in the study. It set up the scaling trend between financing conditions and the survival of startups. More study should be done in internal financial procedures such as budgeting and cash-flow management.

Marc Deloof & Tom Vanacker (2018):The study analyzed the financing of start-ups in financial crises and its correlation with the bankruptcy risk and the rate of startups' survival. It demonstrated that the environment in which the business starts can have an impact on the business. There is a need for further studies on the internal liquidity and cash-flow management.

Angelo CASTALDO and Rosanna PITTIGLIO, Filippo REGNANTI and Domenico SARNO (2023):This study analyzed the efficacy of bank financing and start-up's resilience during crisis. It identified a correlation between sources of outside funding and startup longevity. Direc this aspect requires further research, that is, the role of the internal financial-management practices.

Tom Vanacker, Sophie Manigart, Miguel Meuleman & Luc Sels. The study explored the financial bootstrapping source of finances for new businesses. It concluded that bootstrapping has a positive impact on the development of the ventures where external financing is not enough. However, further research is needed to find the direct impact it has on the failure of startups.

Richard T. Harrison, Colin M. Mason & Paul Girling (2004): The aim of financial bootstrapping in software enterprises was discussed and found to be an alternative method of financing. It highlighted its applicability to tech

companies with limited budgets. However, this is not directly correlated with startup survival and needs further research.

Joakim Winborg (2015):The research explored financial bootstrapping in the context of incubator enterprises and revealed that financial bootstrapping could aid resource limitation in young businesses. It brought attention to the idea of bootstrapping against the 'liability of being new'. Other comparisons between incubated and non-incubated startups are needed.

Michael J. Peel & Nicholas Wilson (1996):Stability of working capital management and practices of financial-management in small business firms were studied. It concluded that the firms' financial management system was based on budgeting and working capital techniques. The actual impact of these practices on the actual survival of startups was not studied.

Regina G. Okafor (2012):Accounting systems, financial information, budgeting and working-capital management have been concluded as factors having an impact on small firms' profitability, growth and survival in the study. It presented well the value of financial-management techniques. These are preliminary findings and more research with a larger number of startups is needed.

Román Culebro-Martínez, Elena Moreno-García & Sergio Hernández-Mejía (2024): This study looked at financial literacy with respect to financial knowledge, financial behaviour and attitudes. It identified that financial behaviour had some significance on the performance of the business. Further determining influences of survivability is research into a specific start-up.

Daniel Agyapong & Albert Bampo Attram (2019):The study revealed that financial literacy contributes to the financial understanding of the owner-managers and their financial decisions. It set a "connection" between financial knowledge and business performance. More research is needed to study its association with start-up survival.

Samuel Kwaku Agyei (2018):The study focused on culture, financial literacy and SME performance, and it revealed that culture has a direct interaction with finances in SMEs determined to improve the business performance. It emphasized the need financial literacy in business management. Additional research on financial-control practices related to a specific start-up is required.

Sahil Manoj Singh (2026):The research revealed that Indian startups had a significant funding problem, cash flow mismatch and cost overruns affecting their funds, and detailed budgeting was lacking. Important financial-management issues that startups encountered were emphasized. A small sample size and descriptive analysis need to be statistically validated, however.

Samson Adewumi (2022): Financial literacy and financial risk-taking behaviour of students from the business start-up program were explored and it was concluded that financial literacy is related to financial choices made by the students. It emphasized the importance of financial literacy among the entrepreneurs. But there is a need for empirical research on real life start-ups.

Sean Wise (2013): In the study financial management constructs and tools such as financial statements and financial ratios were discussed and it was recommended that they can enhance financial management and decrease the probability of new ventures' failure. It offers confirmation of importance of financial knowledge. Further research can be developed focusing on budgeting, cash flow, and working-capital practices, individually.

Chung-Jen Chen (2009):This study involved issues in the study of technology commercialization, incubation, and new venture performance and the venture capital. It concluded that there is an impact of entrepreneurial capabilities and external resources on venture performance. There is a need for further studies regarding the effect of budgeting, cash flow and working-capital control.

Chong Kyoon Lee, Johan Wiklund, Alejandro Amezcua, Tae Jun Bae & Almantas Palubinskas (2022):They examined institutional factors affecting entrepreneurship failure and emphasized the importance of the general business climate. It included an overall multifaceted view of startup failure. More focus is needed on certain financial-management tools.

Don Jyh-Fu Jeng & Ta Huy Hung (2019):The study investigated entrepreneurial failures in terms of failure costs, learning and the residual resources. It gave a comprehensive view of the factors that contribute to the failure of

business enterprises and future entrepreneurial activities. Financial mismanagement, however, was not a specific pain point identified as a reason for failure for startups.

M. Ma'ruf Idris (2024):The study explored some of the strategic financial-management practices such as capital structure, crowdfunding, cash flow management and forecasting. It stressed the need for financial planning for the development and stability of a start-up. The quantitative study needs to be done with actual financial records of startups and their survival or failure data.

Henny Yunita Sihite & Nurna Aziza Dinasti (2025):The study analyzed management control systems, financial leverage and financial literacy and their relationship with the performance of startups. It put the spotlight on the possible significance of FL.It highlighted the possible importance of FL. More data and direct measures of startup lifespans are needed.

2.1 Synthesis and research gap

The literature reveals three lines of research. The other aims at documenting the causes of startup failures, often referring to difficulties in funding and cash depletion, management weaknesses, and other factors (Navaneetha Krishnan et al., 2021; Garg, 2019; Goswami et al., 2023; Khairajani et al., 2024; Chaudhari & Mohanty, 2025). Another group of researchers focuses on external finance and financial constraints, finding that the availability of funds has an impact on growth and survival (S. M. Stucki 2014; Ferrucci et al. 2021; Deloof and Vanacker 2018; Castaldo et al. 2023) and that bootstrapping is a resource-conservation mechanism when funds are scarce (Harrison, Mason, and Girling 2004; Vanacker, Manigart, Meuleman, and Sels 2011; Winborg 2015). Lastly, a third group of studies is about financial management practices and financial literacy in small firms, such as Peel & Wilson (1996), Okafor (2012), Agyapong & Attram (2019), Singh (2026), Wise (2013) or Culebro-Martínez, Moreno-García & Hernández-Mejía (2024)).

In these streams, very little attempts have been made to research the independent role of budgeting, Cash flow management and working capital management in the survival of startups in India quantitatively. There are several authors that state explicitly that such information is desired. The present study addresses this need.

3. Conceptual Framework

The framework views budget, cash flow management and working capital management as independent variables and startup survival (continued existence versus demise) as the dependent variable. Budget covers financial planning, monitoring as well as control of spendings. Cash flow management covers forecasting and control of inflows and outflows and the maintenance of liquidity. Working capital management covers the handling of receivables, payables and inventory. Each practice is expected to increase the odds that a startup survives (continues to exist).

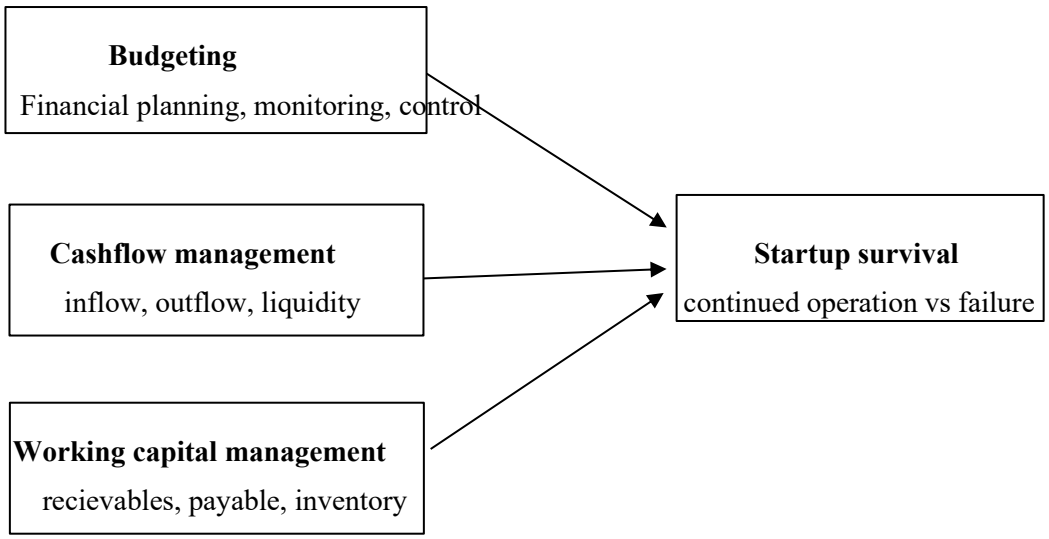


Figure 1: Conceptual framework of the study

4. Research Objectives

1.To determine budgeting practices that can prevent overspending and resource shortfall.

2.To find out cash flow management techniques that can ensure that the startups have enough liquidity.

3.To come up with working capital strategies that can help the young organizations to remain in operation for a long time.

4.To develop recommendations that the founders and managers of the new ventures can implement to improve their management practices and achieve survivorship.

5. Research Hypotheses

H_{01}: Budgeting has no significant impact on the survival of startups.

H_{11}: Budgeting has a significant impact on the survival of startups.

H_{02}: Cash flow management has no significant impact on the survival of startups.

H_{12}: Cash flow management has a significant impact on the survival of startups.

H_{03}: Working capital management has no significant impact on the survival of startups.

H_{13}: Working capital management has a significant impact on the survival of startups.

6. Research Methodology

6.1 Research design and data collection: A descriptive survey design with cross-sectional data was adopted for the research. Primary data were gathered from Indian respondents using an online survey that was conducted in October 2026. The survey used a non-probability (convenience) sampling technique, resulting in 92 completed responses with no missing values. The questionnaire used for the survey had three sections: (a) five demographic questions (age group, gender, education, occupation and monthly income); (b) 15 Likert-type statements on budgeting, cash flow, working capital and survival; and (c) five multiple-choice questions on financial priorities (Q4, Q8, Q14, Q16 and Q17). Likert responses were rated from 1 (strongly disagree / not important) to 5 (strongly agree / very important) and therefore higher scores reflect stronger agreement.

6.2 Variables and measurement

Table 1: Constructs and questionnaire items

Construct	Role	Items	Description
Budgeting (BUD)	Independent	Q1, Q2, Q3, Q5	Preparing a budget, importance of budgeting, tracking expenses and the risk of not doing so
Cash flow management (CF)	Independent	Q6, Q7, Q9, Q10	Importance of cash flow, forecasting inflows/outflows and having emergency reserves, and controlling expenses
Working capital management (WC)	Independent	Q11, Q12, Q13, Q18	Timely collection, payment terms to suppliers and inventory levels, receivables and payables management
Startup survival (SURV)	Dependent	Q15, Q19, Q20	Effective financial management, financial planning and combined practices contributing to the long-term survival

Note: Each construct is the mean of its Likert items (scale 1–5).

6.3 Tools and techniques of analysis

Descriptive statistics (mean, standard deviation, percentages) were computed and Cronbach alpha for each construct with internal consistency was calculated.

Chi-square tests Goodness of fit test for five multiple choice questions Test of Independence between two groups of respondents (gender; students versus non-students) and each multiple choice question. Expected counts were confirmed (all expected counts were greater than one, and at most expected counts were less than 20%).

One-way ANOVA to compare construct scores by education, occupation, income and age groups; Bonferroni adjusted pairwise comparisons for significant F-test. The small categories were amalgamated (e.g. 'Below 18' and '18–25' were combined, and the two middle income groups had to be amalgamated).

Three simple regressions and one multiple regression of SURV on BUD, CF and WC with checks of multicollinearity (VIF) and autocorrelation (Durbin–Watson).

All the tests conducted using Microsoft Excel through formula based worksheets COUNTIFS, CHIDIST, FDIST, TDIST, LINEST, MINVERSE with 5% level of significance.

7. Data Analysis and Interpretation

7.1 Profile of respondents

Table 2: Profile of respondents (N = 92)

Variable	Category	n	%
Age group	Up to 25	67	72.8
	26-35	16	17.4
	Above 35	9	9.8
Gender	Male	51	55.4
	Female	41	44.6
Education	Undergraduate Degree	61	66.3
	Higher Secondary	19	20.7
	Postgraduate Degree	12	13.0
Occupation	Student	52	56.5
	Entrepreneur/Other	21	22.8
	Employee	19	20.7
Monthly income	No income	48	52.2
	₹30,001-₹75,000	18	19.6
	Below ₹30,000	17	18.5
	Above ₹75,000	9	9.8

Source: Primary data; analysis in Microsoft Excel.

Most of our respondents are young men.About 73% are 25 or under, and 55% are male. Two out of three have an undergraduate degree, and over half are students, which is why 52% say they have no income. Around 21% are employees, and the remaining 23% are entrepreneurs or other professionals.

7.2 Descriptive statistics and reliability

Table 3: Item-level descriptive statistics

Item	Construct	Mean	SD	% agree (4–5)
Q1 Budget before operations	BUD	3.75	1.04	66.3
Q2 Budgeting importance	BUD	4.39	0.82	82.6
Q3 Expense monitoring	BUD	3.72	1.23	63.0
Q5 Poor budgeting risk	BUD	3.86	1.05	65.2
Q6 Cash flow importance	CF	4.37	0.89	83.7
Q7 Cash forecasting	CF	3.84	1.11	71.7
Q9 Emergency cash reserves	CF	3.82	1.08	70.7
Q10 Expense control	CF	4.43	0.77	84.8
Q11 Timely customer collection	WC	4.04	0.89	71.7
Q12 Supplier payment terms	WC	3.98	1.08	72.8
Q13 Inventory level	WC	3.71	1.15	67.4
Q18 Receivables & payables mgmt	WC	4.04	1.07	77.2
Q15 Financial mgmt & survival	SURV	4.01	1.06	77.2
Q19 Financial planning	SURV	4.00	1.11	78.3
Q20 Combined financial mgmt	SURV	3.99	1.11	79.3

Source: Primary data; analysis in Microsoft Excel.

All items recorded mean scores above 3.7. The highest-rated were expense control (Q10,M = 4.43), the importance of budgeting (Q2,M = 4.39), and the importance of cash flow (Q6,M = 4.37), whereas inventory level (Q13,M = 3.71), expense monitoring (Q3,M = 3.72), and pre-operational budgeting (Q1,M = 3.75) were rated lowest. Collectively, these results indicate a strongly favourable attitude toward all three financial practices.

Table 4: Construct scores and reliability

Construct	Items	Mean	SD	Min	Max	Cronbach's α
Budgeting (BUD)	4	3.93	0.61	1.50	5.00	.364
Cash flow management (CF)	4	4.11	0.57	2.00	5.00	.354
Working capital management (WC)	4	3.94	0.58	1.50	5.00	.256
Startup survival (SURV)	3	4.00	0.70	2.00	5.00	.288

Source: Primary data; analysis in Microsoft Excel.

Cash flow management has the highest mean of 4.11, followed by working capital management (3.94) and budgeting (3.93), while perceived survival averages 4.00. Cronbach's alphas are low (0.26 – 0.36) for all four constructs and far below the conventional 0.70 threshold. As a result, individual items within a construct reflect somewhat different perspectives and should be considered as composite indicators rather than measuring a single dimension on a fine scale, which is also noted as a limitation in Section 11.

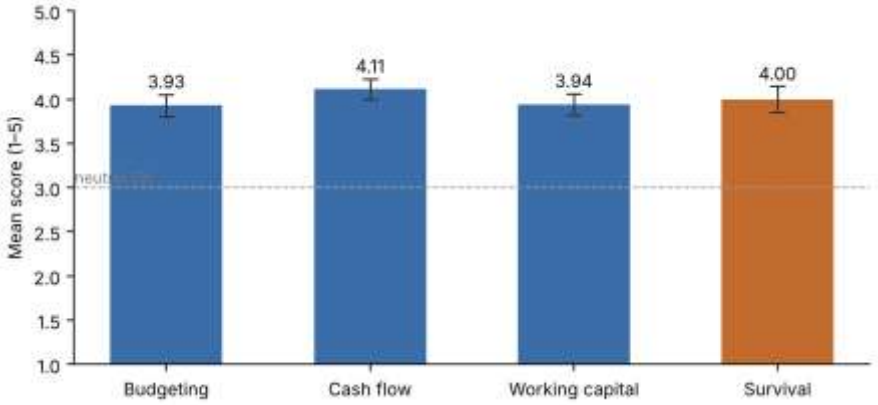


Figure 2: Mean construct scores with 95% confidence intervals

7.3 Chi-square analysis

(a) Goodness-of-fit. Under the null hypothesis, respondents would be spread evenly across the options of each multiple-choice question (18.4 per option).

Table 5: Chi-square goodness-of-fit tests

Question	Most frequent response	χ^2	df	p	Result
Q4 Budget priority	All of the above (46.7%)	41.587	4	< .001	Not uniform
Q8 Greatest cash-flow problem	High operating expenses (31.5%)	11.587	4	.021	Not uniform
Q14 Most important working-capital area	All of the above (29.3%)	17.130	4	.002	Not uniform
Q16 Most important practice for survival	Receivables management (35.9%)	20.283	4	< .001	Not uniform
Q17 Biggest financial challenge	Lack of funds (30.4%)	13.326	4	.010	Not uniform

Source: Primary data; analysis in Microsoft Excel.

Preferences towards the five questions are evidently uneven for all (each $p < .05$). Roughly half the respondents (46.7%) believe that a start-up must prioritize any area of the budget, with operating expenses accounting for the majority (15.2%). Receivables management practice is considered the most crucial for survival by 35.9% respondents, followed far by 'all of the above' (20.7%), cash flow management (19.6%), and proper budgeting (17.4%); payables management was selected by only 6.5%. Lack of funds (30.4%) and high operating costs (26.1%) are viewed as the two most significant financial challenges, whereas poor budgeting is only mentioned by 8.7%. In turn, working capital has 'all of the above' (29.3%) and managing cash balances (28.3%) at the top. High operating expenses (31.5%) and low sales (25.0%) are the most common causes of cash-flow issues, far ahead of delayed customer payments and unexpected expenses (15.2% each); this is the lowest of the five skews ($p = .021$).

(b) Tests of independence. Ten tests examine whether preferences depend on gender or on being a student.

Table 6: Chi-square tests of independence

Grouping	Question	χ^2	df	P	Cramér's V	Significant?
Gender	Q4 Budget priority	0.969	4	.914	.103	No
Gender	Q8 Cash-flow problem	6.510	4	.164	.266	No
Gender	Q14 Working-capital area	5.230	4	.264	.238	No
Gender	Q16 Key practice	5.402	4	.249	.242	No
Gender	Q17 Biggest challenge	2.352	4	.671	.160	No
Student status	Q4 Budget priority	4.974	4	.290	.233	No
Student status	Q8 Cash-flow problem	3.104	4	.541	.184	No
Student status	Q14 Working-capital area	2.128	4	.712	.152	No
Student status	Q16 Key practice	9.930	4	.042	.329	Yes
Student status	Q17 Biggest challenge	14.529	4	.006	.397	Yes

Source: Primary data; analysis in Microsoft Excel.

None of the five gender tests are significant (all $p > .16$), so men and women are not significantly different in terms of financial priorities. Of the five student versus non-student tests, two are significant. The practice judged most important for survival (Q16) is different between the groups ($\chi^2(4) = 9.93$, $p = .042$, $V = .329$): students are more likely to report receivables management (44.2% versus 25.0%) and proper budgeting (23.1% versus 10.0%) as most important, whereas non-students are more likely to say cash flow management (27.5% versus 13.5%) or 'all of the above' (30.0% versus 13.5%). The biggest financial challenge (Q17) is different as well ($\chi^2(4) = 14.53$, $p = .006$, $V = .397$): non-students are far more likely to name lack of financial knowledge (32.5% versus 3.8%) as the problem, whereas students are more likely to say they lack funds (38.5% versus 20.0%). Since ten tests were run, a strict Bonferroni threshold would be $\alpha = .005$, so the Q17 result ($p = .006$) narrowly misses and the Q16 result does not reach it, so both should be interpreted cautiously.

7.4 One-way ANOVA

Table 7: One-way ANOVA of construct scores by respondent group

Grouping factor	Dependent variable	F	df	P	η^2	Significant?
Education	BUD	2.113	2, 89	.127	.045	No
Education	CF	0.951	2, 89	.390	.021	No
Education	WC	1.233	2, 89	.296	.027	No
Education	SURV	1.975	2, 89	.145	.042	No
Occupation	BUD	0.787	2, 89	.458	.017	No
Occupation	CF	0.062	2, 89	.940	.001	No
Occupation	WC	0.332	2, 89	.719	.007	No
Occupation	SURV	0.777	2, 89	.463	.017	No
Income	BUD	0.060	3, 88	.981	.002	No
Income	CF	0.282	3, 88	.838	.010	No
Income	WC	1.283	3, 88	.285	.042	No
Income	SURV	1.045	3, 88	.377	.034	No

Grouping factor	Dependent variable	F	df	P	η^2	Significant ?
Age	BUD	0.579	2, 89	.563	.013	No
Age	CF	0.053	2, 89	.949	.001	No
Age	WC	0.535	2, 89	.588	.012	No
Age	SURV	0.675	2, 89	.512	.015	No

Source: Primary data; analysis in Microsoft Excel.

Table 8: Mean perceived-survival score (SURV) by respondent group

Factor	Group	n	Mean	SD
Education	Higher Secondary	19	4.123	0.601
	Undergraduate Degree	61	4.033	0.714
	Postgraduate Degree	12	3.639	0.745
Occupation	Student	52	4.026	0.663
	Employee	19	4.105	0.762
	Entrepreneur/Other	21	3.841	0.757
Income	No income	48	3.931	0.684
	Below ₹30,000	17	4.196	0.755
	₹30,001-₹75,000	18	4.111	0.657
	Above ₹75,000	9	3.778	0.799
Age	Up to 25	67	3.975	0.690
	26-35	16	3.958	0.868
	Above 35	9	4.259	0.465

Source: Primary data; analysis in Microsoft Excel.

None of the 16 ANOVAs are statistically significant at 5%. Respondents' views on budgeting, cash flow management and working capital management and their perception of startup survival do not differ systematically by education, occupation, income or age. The smallest p-value is for budgeting by education ($F(2, 89) = 2.11$, $p = .127$, $\eta^2 = .045$), followed by survival by education ($F(2, 89) = 1.97$, $p = .145$); postgraduates score highest on budgeting ($M = 4.21$), while undergraduates score lowest ($M = 3.84$), and for survival perception higher-secondary respondents score highest ($M = 4.12$), while postgraduates score lowest ($M = 3.64$). These differences are within sampling variation; because none of the F-tests are significant, post-hoc comparisons were not necessary. The practical implication is that the positive view on financial management is shared broadly among the respondent groups.

7.5 Correlation and linear regression

Table 9: Pearson correlation matrix

	BUD	CF	WC	SURV
BUD	1	.201	.123	.364
CF	.201	1	.202	.307
WC	.123	.202	1	.267
SURV	.364	.307	.267	1

Note: SURV correlations with BUD, CF and WC are significant at $p < .05$ ($r = .36$, $p < .001$; $r = .31$, $p = .003$; $r = .27$, $p = .010$). $n = 92$.

All three practices are positively and significantly correlated with perceived survival, and correlations among the three predictors are low (r = .12 to .20), which indicates that each contributes different information.

Simple regressions (one practice at a time)

Table 10: Simple linear regressions of SURV on each practice

Hypothesis	Intercept	B	SE	t	p	R^2	F(1, 90)	Decision
H1: Budgeting	2.358	0.418	0.113	3.713	< .001	.133	13.78	Reject H_0
H2: Cash flow	2.432	0.381	0.124	3.062	.003	.094	9.37	Reject H_0
H3: Working capital	2.734	0.321	0.122	2.626	.010	.071	6.90	Reject H_0

Source: Primary data; analysis in Microsoft Excel.

Multiple regression

The multiple regression model is $SURV = b_0 + b_1(BUD) + b_2(CF) + b_3(WC) + e$.

Table 11: Model summary and ANOVA of the multiple regression

Statistic	Value
Multiple R	.473
R^2	.223
Adjusted R^2	.197
Standard error of estimate	0.631
F(3, 88)	8.44
Significance of F	< .001
Durbin–Watson	2.27
Maximum VIF	1.08

Source: Primary data; analysis in Microsoft Excel.

Table 12: Coefficients of the multiple regression (dependent variable: SURV)

Predictor	B	SE	β	t	P	95% CI for B	VIF
(Constant)	0.692	0.674		1.03	.308	[-0.647, 2.031]	
Budgeting (BUD)	0.343	0.110	.299	3.11	.003	[0.124, 0.563]	1.05
Cash flow management (CF)	0.259	0.121	.209	2.14	.035	[0.019, 0.500]	1.08
Working capital management (WC)	0.226	0.116	.188	1.95	.054	[-0.004, 0.456]	1.05

Source: Primary data; analysis in Microsoft Excel.

The model is statistically significant, $F(3, 88) = 8.44$, $p < .001$, and explains 22.3% of the variance in perceived survival (adjusted $R^2 = .197$). VIF values close to 1 suggest the lack of multicollinearity, and a Durbin–Watson statistic of 2.27 indicates no meaningful autocorrelation of residuals. Controlling for the other practices:

•The strongest effect is seen for budgeting ($B = 0.343$, $\beta = .299$, $p = .003$): a one-point increase in the budgeting score is associated with a 0.34-point increase in perceived survival.

•Cash flow management also has a significant effect ($B = 0.259$, $\beta = .209$, $p = .035$).

•Working capital management is a borderline significant predictor ($B = 0.226$, $\beta = .188$, $p = .054$): with the 95% confidence interval [-0.004, 0.456] barely including zero, and would be significant at the 10% level.

The residuals are left-skewed (skewness = -0.86), as it is expected for the Likert-type response design that is often capped at the top; thus, the p-values should be taken with a grain of salt. The remaining 77.7% of the variance in survival perception is determined by variables

beyond the scope of the current analysis.

7.6 Summary of hypothesis tests

Table 13: Decision on hypotheses

Hypothesis	Simple regression	Multiple regression	Decision
H_{01} – Budgeting has no impact	$B = 0.418$, $p < .001$	$\beta = .299$, $p = .003$	Rejected – budgeting has a significant impact
H_{02} – Cash flow has no impact	$B = 0.381$, $p = .003$	$\beta = .209$, $p = .035$	Rejected – cash flow management has a significant impact
H_{03} – Working capital has no impact	$B = 0.321$, $p = .010$	$\beta = .188$, $p = .054$	Rejected on its own; not rejected at 5% after controlling for BUD and CF (partial support)

Source: Primary data; analysis in Microsoft Excel.

8. Discussion

All three practices are positively associated with perceived startup survival but budgeting has greatest and most robust association. This is consistent with literature indicating that effective financial planning and use of financial tools reduce risk of failure (Okafor, 2012; Wise, 2013; Idris, 2024) and evidence from India that cash-burn and mismanagement are key drivers of failure (Goswami et al., 2023; Khairajani et al., 2024; Chaudhari & Mohanty, 2025). It complements Singh (2026) in which only 20% of founders followed detailed budgeting and 80% had recurrent cash-flow mismatches. This study adds a statistical test of the hypothesis that stronger budgeting views are associated with stronger survival perceptions.

Cash flow management is the second most significant predictor of perceived survival and also has the highest mean (M = 4.85). This echoes the literature on liquidity and financial constraints (Stucki, 2014; Ferrucci et al., 2021; Deloof & Vanacker, 2018). Respondents identified expense control (Q10) and the importance of cash flow (Q6) and, as in Singh (2026), high operating expenses were the biggest source of cash-flow problems.

Working capital management is significant in isolation but is only marginally significant ($p = .054$) when controlling for budgeting practices. Its influence may be partially mediated through the effect of budgeting and cash-flow and it may be more important for product-based than service-based startups. The low inventory rating (Q13) supports this but cannot be tested with this data. It is safest to assume a smaller and less certain independent effect, not absence of one. Peel & Wilson (1996) found these techniques widely used but did not associate them with failure.

The categorical results add nuance. The respondents identified receivables management as the most important survival practice and lack of funds and high operating costs as the biggest challenges. Budgeting was rarely identified (8.7%) despite being the strongest predictor so founders may act on symptoms not planning weaknesses. Non-students were more likely to identify lack of financial knowledge in line with the financial-literacy literature (Agyapong & Attram, 2019; Culebro-Martínez et al., 2024) while students preferred receivables management and budgeting. Both are indicative but not conclusive given the number of tests run.

There were few demographic differences: gender had no effect and none of the 16 ANOVAs were significant by education, occupation, income or age. This supports treating these practices as general good practice.

9. Major Findings

•All three practices are positively endorsed (construct means 3.94-4.11), with cash flow management having the highest mean.
•The multiple regression is statistically significant ($R2 = .223$, $F(3, 88) = 8.44$, $p < .001$), explaining around a quarter of the variance in perceived survival.
•Budgeting has the biggest impact ($\beta = .299$), followed by cash flow management ($\beta = .209$), rejecting both H_{01} and H_{02}.
•Working capital is significant as a predictor on its own ($p = .010$), but only marginally so when controlling for other factors ($p = .054$), partially supporting H_{03}.
•Gender is not a factor in determining survival priorities. Students prefer receivables management, budgeting and lack of funds, while non-students cite lack of financial knowledge.
•Receivables management is the most selected survival practice (35.9%), and lack of funds is the biggest obstacle (30.4%).
•None of the ANOVAs were significant by educational status, occupation, income level or age (all $p > .05$).

10.Suggestions and Practical Recommendation

Budgeting

•Prepare a written budget before operations and re-forecasts it monthly, as it showed the strongest link with survival.
•Set category-wise spending limits and review planned versus actual spending monthly, giving operating expenses first attention.

Cash flow management

•Keep a rolling 12-week cash-flow forecast and track burn rate and runway.

•Build an emergency reserve, and decide in advance which expenses to cut first if sales fall.

•Control unnecessary spending continuously (Q10, M = 4.43).

Working capital management

•Invoice promptly, set clear credit terms and chase overdue receivables.

•Align supplier terms with the customer collection cycle, and keep inventory lean, especially for product startups.

Overall financial management

•Treat budgeting, cash flow and working capital as one system with a single monthly finance review.

Build founders' financial knowledge through incubators, mentors and training, especially for non-students, and offer simple budget and cash-flow templates.**11. Limitations and Scope for Future Research**

- **Perception-based measure:** Survival is measured via opinions about the role of financial management in survival, not the actual survival of the venture or its closure. The results are therefore reflective of association with perceived survival, not causation.
- **Sample:**The sample is a non-probability convenience sample of 92 Indian respondents, more than half of which are students and 73% are aged up to 25. The findings may not generalise to experienced founders; indeed the relatively small sample size reduces power to identify subtle differences – particularly in the ANOVAs.
- **Reliability:** Cronbach's alpha for the constructs is low (.26 – .36) and the model explains 22.3% of the variance. Future work should use validated multi-item measures.
- **Statistical assumptions:** Likert data are ordinal and the regression residuals are non-normal; multiple tests were performed, so isolated p-values close to .05 – including the marginal working capital result (p = .054) and the student versus non-student chi-square results – are tentative. Ordinal regression, non-parametric tests or structural equation modelling could be used to verify the findings.
- **Future research:** Longitudinal studies following up start-ups over time and using actual financial statements and survival outcomes would address the limitations described; moderators such as financial literacy, sector and funding stage may also be considered.

12. Conclusion

This study tested how budgeting, cash flow management and working capital management practices contribute to a start-up's perceived chances of survival in India using 92 Indian respondents. Analysis using Excel's chi-square, ANOVA and regression tests showed that the three practices explain a significant portion of variation in perceived survival (R^2 = .223). Budgeting and cash flow both have significant impacts individually, with budgeting having a stronger effect, while working capital is significant on its own and marginal when controlling for the other two. Financial priorities do not vary by gender, but construct scores do not differ significantly by education, occupation, income or age, while students and non-students differ both in their most important practice and biggest challenge. This supports the view that disciplined budgeting and control over cash are fundamental to a start-up's survival chances, with working capital discipline providing a significant addition. This study's findings must be treated as tentative due to the reliance on young respondents, and further analysis of actual survival outcomes should be undertaken.

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