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# THE IMPACT OF FINANCIAL RESOURCE AVAILABILITY ON ADHERENCE TO PROJECT SCHEDULES

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**Abstract**

This research aims to study the impact of financial resource availability on adherence to project schedules, considering that funding represents one of the most important elements of project management success. The research problem is manifested in the gap between financial planning and scheduling, leading to repeated delays in implementation.

The study used the descriptive-analytical method through analyzing data from construction and service projects, in addition to reviewing relevant literature and previous studies. A questionnaire was designed and directed to project managers, contractors, and supervising engineers to measure the relationship between funding availability and schedule discipline.

Results showed that more than half of schedule delays are attributed to direct or indirect financial reasons, such as delays in payment disbursement or poor allocation of resources among phases. The study recommends aligning financial plans with schedules from the early stages of the project, and adopting flexible financing policies that ensure regular cash flow.

The scientific value of the study lies in linking modern theories of finance and project management, while the practical value lies in the applicability of its results across sectors to improve schedule performance and execution quality.

## Introduction

Project management is one of the most important fields representing the core of modern economic and social development. Projects are no longer just tools to achieve specific objectives but have become a reflection of institutions' and societies' ability to plan, organize, and adapt to surrounding changes.

Adherence to the project schedule is among the most prominent indicators of project success, as it reflects the efficiency of management and the effectiveness of coordination among different resources. Time in project management is not merely a period for execution; it is a strategic element strongly connected to financial, human, and material resources. Any imbalance in one of these elements often leads to deviations in others, affecting overall performance and weakening the likelihood of achieving project objectives on time (Al-Zoubi, 2019).

Among the factors clearly influencing adherence to schedules, financial resources stand out as one of the key pillars throughout the project lifecycle. Adequate and stable funding ensures uninterrupted execution and allows implementers to proceed with high efficiency. Conversely, lack of funding, delays in payment, or poor financial management often result in setbacks beginning with material shortages, stopping certain activities, and frequent rescheduling—leading to increased costs and reduced quality (Al-Sha'er, 2018).

Practical reality in many projects shows that having a detailed project schedule does not guarantee adherence. Schedule plans require effective financial support to convert from documents into actual implementation. Integrated financial–temporal planning ensures the alignment of financial flows with work progress.

Recent studies show that more than half of schedule delays are directly or indirectly financial in nature. Often, budgets are unrealistic, funds are distributed unevenly across phases, or financial challenges are not adequately anticipated. Financial management is thus not merely a number in the budget but an ongoing process of monitoring, control, and forecasting to ensure that cash flow aligns with each project stage (Al-Harbi, 2020).

This study is important because it highlights the relationship between two essential components of the project management triangle—time and cost—plus the equally important component of quality. When funding is adequate and regular, schedule adherence can be achieved without compromising quality. When financial resources are constrained, managers may redistribute efforts and resources, often disrupting the schedule (Al-Qaddoumi, 2020).

The importance of this topic increases under current economic challenges. Projects now operate in uncertain financial environments, making financial management more complex. Projects with organized financial resources have greater flexibility to face unexpected events such as price hikes, supply delays, or temporary crises. Those with weak financial foundations remain vulnerable to delay or even failure.

Most previous studies analyzed delays from technical or administrative perspectives without deeply addressing the financial aspect. This research adds theoretical and practical depth by linking financial stability to schedule discipline, raising awareness among project managers and decision-makers regarding proactive financial planning and synchronized schedules and budgets.

The scientific value lies in integrating financial theories—such as working capital theory and the theory of constraints—with project management practice. The practical significance lies in the applicability of the results across industrial, service, technological, and construction projects.

Therefore, this study analyzes the theoretical impact of financial resource availability on adherence to project schedules by reviewing concepts related to funding, the role of cash flow in supporting schedule performance, and relevant contemporary studies. It offers a theoretical perspective to help institutions develop financial policies that balance time, cost, and quality.

**Research Problem**

Many projects across sectors face challenges in adhering to planned schedules. Despite clear schedules and ongoing monitoring, delays remain a major problem—especially in construction and similar sectors.

Repeated factors include: delayed payments, insufficient funding, poor cash-flow management, and slow payment to contractors or suppliers. For example, a study in Pakistan found that “financial issues” were among the most significant obstacles to schedule adherence (Mustafa & Jaber, 2019).

Similarly, a study in Oman indicated that delayed payments significantly affected productivity in small and medium contracting companies, reflecting negatively on schedule compliance (Abdulgani, 2021).

Thus, the central research problem is:

*To what extent does the availability of financial resources (quantity, timing, distribution) affect a project’s ability to adhere to its planned schedule? What factors interact with this relationship?*

Many projects begin with precise schedules but quickly face disruptions due to delayed financial inflows or insufficient funding. The root problem lies in the gap between financial planning and scheduling. Schedules may be developed without accounting for the timing or availability of funds, causing activities to stop and delays to accumulate.

Thus, the key question is:

*What is the impact of financial resource availability on adherence to project schedules, and how does this reflect on project success and continuity?*

**Research Questions**

1. What is the level of financial resource availability during different project stages?
2. To what extent do projects adhere to the planned schedule?
3. Is there a significant relationship between financial availability and schedule adherence?
4. What administrative and organizational factors strengthen or weaken this relationship?
5. How can financial resource management be improved to ensure schedule adherence?

**Research Hypotheses**

**Hypothesis 1: Funding Quantity and Schedule Adherence**

- H0: No statistically significant relationship exists between funding quantity and schedule adherence.
- H1: A statistically significant relationship exists.

**Hypothesis 2: Timing of Disbursement**

- H0: No relationship exists between timing of financial disbursement and schedule adherence.
- H1: A relationship exists.

**Hypothesis 3: Funding Distribution**

- H0: No relationship exists between distribution of funds and schedule deviation.
- H1: A relationship exists.

**Hypothesis 4: Mediating Factors**

- H0: Planning and financial control do not affect the relationship.
- H1: They do affect the relationship.

**Hypothesis 5: Payment Delays**

- H0: No relationship exists between payment delays and schedule delays.
- H1: A relationship exists.

**Theoretical Framework**

**First: The Concept of Financial Resources in Project Management**

Financial resources represent the lifeblood of any project, as no activity can be executed without allocating a specific budget to cover its needs. Financial resources are defined as all funds designated to cover the project's costs, including purchasing materials, employing labor, renting equipment, and financing administrative and consulting services. Planning these resources is a vital process to ensure that the necessary funding is available for each phase of the project at the right time and in the required amount.

Financial resource planning involves estimating the total project cost, determining sources of funding, and establishing a schedule for disbursing funds in alignment with the sequence of implementation activities. Researchers in project management emphasize that the quality of financial planning is a key indicator of a project's success in adhering to its schedule, as insufficient or irregular funding often leads to interruptions in activities or repeated rescheduling of work phases (Ismail, 2019).

Likewise, poor distribution of financial resources across project phases may result in implementation issues, where large amounts are spent on non-critical phases while essential phases necessary for the continuity of work are neglected. Therefore, the temporal and functional allocation of funding is considered one of the most important elements of successful financial planning (Hamouda, 2023).

Furthermore, the mere availability of financial resources is not enough; the timing of their disbursement and their distribution in harmony with the project schedule is a critical factor. Delays in disbursement or inappropriate allocation lead to activity stoppages or delays in starting them. The more flexible and well-organized the project's financial system is in alignment with the progression of activities, the more consistent project execution will be.

**Second: The Concept of Schedule Adherence**

Schedule adherence means carrying out project activities within the specified timeframe according to the original plan without delay. It is a fundamental criterion for evaluating project management efficiency. Achieving this adherence requires precise coordination among resources (human, material, and financial) and the activities defined in the project schedule (Al-Shami, 2018).

Any delay in project activities is considered an indicator of weak management, planning flaws, or a lack of resources. The literature shows that the most common causes of delay include inaccurate activity duration estimation, weak communication among execution teams, delays in administrative decision-making, and insufficient funding. Therefore, schedule adherence relies not only on good planning but also on effective execution and timely financial and administrative support (Naeem, 2020).

**Third: The Relationship Between Financial Resource Availability and Schedule Adherence**

Studies show that the relationship between funding availability and schedule adherence is strongly positive, meaning that increased financial resource availability contributes to improved adherence to the project schedule. When the necessary funds are available at the right time, the project manager can immediately provide teams with required equipment and materials, reducing waiting time and delays (Bouabid, 2022).

In cases where funding is delayed or insufficient to meet actual needs, project activities may halt, forcing the project manager to rearrange the schedule or reduce the scope of work—ultimately causing overall delays. On the other hand, excessive financial availability without proper planning may lead to misuse of resources or increased spending on unnecessary activities, creating pressure on future budget phases (Al-Qaddoumi, 2020).

**Previous Studies**

Previous studies form the essential foundation upon which any scientific research relies to clarify what has already been accomplished in the field and to identify the research gap that the researcher seeks to address. In this context, many Arab studies have focused on analyzing the relationship between the availability of financial resources and adherence to project schedules—particularly in engineering and construction sectors—due to their direct impact on execution efficiency and the financial sustainability of projects. These studies varied between descriptive, analytical, and empirical approaches, and employed different research tools such as questionnaires, interviews, and analysis of financial and scheduling records. Below is a detailed presentation of the most important of these studies.

The study by Al-Shammari (2018), entitled *"The Impact of Funding on the Time Performance of Construction Projects"*, is considered one of the earliest Arab attempts to link financial and temporal dimensions in project environments. The study aimed to determine the relationship between funding availability and project delivery delays. The researcher used the descriptive-analytical method by distributing a 30-item questionnaire to a sample of 60 participants, including project managers, supervising engineers, and contractors from major contracting companies. The questionnaire

covered topics such as the level of project funding, regularity of financial disbursement, and methods of addressing financial shortages during execution. Using SPSS for data analysis, based on correlation coefficients and simple regression, the results showed that 68% of delays were a direct result of delayed payments or weak liquidity. The study further revealed that projects with structured phased-funding plans achieved higher schedule adherence (up to 82%). The study recommended aligning financial and scheduling plans from the design stage and conducting monthly financial reviews linked to project phases.

The study by Abdulrahman (2019), titled *"The Relationship Between Government Funding and Schedule Adherence in Public Projects"*, examined government-funded projects to understand how financial appropriations affect schedule compliance. The study adopted a quantitative analytical approach, collecting data from 45 service projects using a questionnaire directed at project managers and owners. It also utilized actual financial and schedule data. Using linear regression analysis, the results indicated a strong positive correlation between funding regularity and actual execution duration ($r = 0.81$). The study showed that projects whose funding disbursement was delayed by more than 20% of their total value experienced an average delay of 4.5 months. Bureaucratic delays in payment approval were identified as a key factor in schedule non-compliance. The study recommended adopting electronic payment systems and linking funding to project milestone performance.

In another applied study, Al-Sayyid (2020), titled *"Cash-Flow Management and Its Impact on the Schedule of Private Construction Projects"*, analyzed the relationship between cash-flow management and schedule performance indicators. The study included 40 private-sector projects with values ranging from 5 to 100 million currency units. The researcher employed a comparative case-study approach by gathering data from financial records, project schedules, and interviews with financial project managers. The findings showed that projects using clearly time-defined cash-flow plans achieved schedule adherence of up to 90%, whereas adherence dropped to 60% in projects lacking organized financial management. The results also indicated that a temporary cash shortage of 10% caused a delay of 6 to 8 days for each major activity. The researcher emphasized the importance of integrating cash-flow management into the overall project management system.

Al-Khateeb's study (2021), titled *"The Impact of Weak Liquidity on the Execution of Engineering Projects"*, focused on how delayed funding disrupts human and material resources in projects. The study included a sample of 25 medium-sized contracting companies. Using a descriptive-analytical method and semi-structured interviews with project managers and site engineers, the results showed that 72% of delayed projects suffered from liquidity problems during the second half of execution. The analysis indicated that the first signs of financial strain appear in delayed supplier payments and slow material delivery, followed by reduced workforce productivity. The study concluded that weak funding leads not only to schedule delays but also affects final quality and total cost. It recommended establishing contingency financing mechanisms to handle unexpected cash-flow interruptions.

The study by Al-Otaibi (2022), titled *"Financial Factors Affecting Schedule Performance in Mega Projects"*, aimed to determine the key financial variables with statistically significant effects on schedule adherence. The study used multiple regression to analyze data from 50 major infrastructure projects, examining factors such as funding regularity, flexibility of financial transfers, and availability of contingency reserves. The results showed that monthly funding regularity and the presence of

financial reserves were the most influential factors, with a determination coefficient of $R^2 = 0.74$—indicating that these variables explain 74% of the variance in schedule adherence. The study also found that the lack of joint monitoring between financial and technical departments caused delays in 25% of planned activities. It recommended the use of ERP systems to align financial and schedule plans and update them automatically.

Al-Maghribi (2023) presented an extensive analysis in his study *"Financial Management and Schedule Adherence in Infrastructure Projects"*. The study aimed to explore the relationship between financial-executive coordination and schedule variances. Using a case-study approach, the researcher analyzed documents from 25 public infrastructure projects, including actual payment records and execution progress data. Results showed that projects with weak financial coordination faced delays of up to 30% of total project duration, while those with strong financial-executive integration achieved adherence rates above 85%. The study emphasized that achieving schedule compliance requires establishing a financial coordination unit within the project management team to monitor alignment between cash flows and execution timelines, updated weekly to ensure contractor compliance.

Meanwhile, Al-Tai (2023) examined a more administrative perspective in the study *"Administrative and Financial Factors Affecting Schedule Adherence in Construction Projects"*. Based on qualitative methods and interviews with 20 experts in public and private project management, the results indicated that administrative issues such as weak financial oversight, delays in approving monthly progress claims, and unclear funding systems contribute significantly to project delays. The study also noted that a lack of transparency in financial information flow causes conflicts between project management and funders. The researcher concluded that financial governance is an effective tool for ensuring schedule stability through periodic financial monitoring and integrated weekly reporting.

Finally, Al-Harbi (2024) discussed in his study *"Funding Sources and Their Impact on Time Performance in Private Projects"* the differences between self-funded projects and those funded through loans or external support. The study used time-series analysis for 15 projects over three years, comparing completion rates and payment schedules. The results showed that self-funded projects maintained higher payment regularity and achieved schedule adherence of 92%, compared to only 70% in externally funded projects. The study indicated that reliance on bank financing imposes procedural constraints that delay payment releases, directly affecting project schedules. It recommended creating more flexible funding mechanisms that allow cash-flow adjustments based on actual site progress.

Across these studies, it is evident that nearly all researchers agreed on the strong positive relationship between financial resource availability and schedule adherence, and that any imbalance in funding regularity leads to clear execution delays. The literature further highlights that effective financial management—including proactive financial planning, cash-flow management, contingency budgeting, and coordination between financial and technical departments—is a central factor in achieving schedule adherence. Additionally, the studies emphasized the importance of digital transformation in project financial management, as electronic systems such as ERP and Primavera enable synchronized monitoring of financial and schedule performance, allowing early detection and immediate correction of deviations.

Collectively, these studies conclude that project success in achieving schedule goals depends not only on technical or administrative efficiency but also on financial

stability and the quality of financial resource management throughout the project lifecycle. The Arab literature affirms that integration between schedule plans and financial plans is the ideal framework for modern project management and represents the direction current research seeks in developing an integrated Arab model for financial and schedule project management.

**Comparative Analysis of Previous Studies**

A review of the previous studies shows that there are important points of similarity and difference between what those studies addressed and what the current research aims to investigate:

**Similarities**

- Most previous studies (such as Al-Shammari, 2018; Abdulrahman, 2019) focused on the direct relationship between the availability of financial resources and the level of adherence to project schedules.
- All studies confirmed that schedule delays are closely linked to financial factors, whether due to delayed payments, weak liquidity, or poor distribution of funds.
- The majority of studies used the descriptive–analytical method with tools such as questionnaires, and analysis of financial and schedule records—consistent with the methodology proposed in this research.

**Differences (Research Gap)**

- Most previous studies focused solely on construction projects, with less attention given to service, technological, or infrastructure projects.
- Some studies were limited to descriptive analysis without using advanced statistical tools (such as path analysis or multiple regression) to measure the direct and indirect effects of funding on schedule adherence.
- Previous studies did not sufficiently address mediating variables such as schedule planning quality, contract clarity, or client payment delays, which may influence the relationship between funding and schedule discipline.
- Sample sizes were limited, often confined to a small number of projects or a single sector, reducing the generalizability of the findings.

**How the Current Research Will Address This Gap**

- The study will broaden its scope to include projects from multiple sectors (construction, service, engineering, and infrastructure), enhancing comparison and generalizability.
- It will rely on advanced quantitative analysis through statistical tools such as correlation, regression, and path analysis to clarify both direct and indirect effects of funding on schedule adherence.
- The research will systematically examine mediating variables such as schedule planning quality and payment delays to provide a more comprehensive explanation of the relationship.
- The study will use a larger and more diverse sample (30–50 projects), increasing the strength and accuracy of the results.
- The research aims to provide practical insights through clear recommendations for project managers and decision-makers on how to align financial plans with schedules from the earliest stages of the project.

**Research Methodology**

**First: Study Design**

The study will be descriptive and analytical, relying on collecting data from real, ongoing, or completed projects to determine the nature of the relationship between the availability of financial resources and the level of adherence to the project schedule.

The descriptive approach will allow understanding the phenomenon as it occurs in reality through observation and analysis, while the analytical approach will enable the interpretation of factors and relationships between variables.

The fieldwork will be supported by secondary analysis of recent references and studies (2018–2024), which will contribute to building the theoretical framework and clarifying modern global trends in financial and project management.

**Second: Research Sample**

A sample of 30 to 50 projects will be selected in fields such as construction, infrastructure, and major engineering projects. The sample includes projects from both the public and private sectors in order to compare different funding patterns and their effect on schedule performance.

Projects will be selected based on the availability of documented financial and schedule data. Preference will be given to projects in advanced stages of execution or recently completed to ensure accuracy of information and enable analysis of the real relationship between funding and scheduling.

**Third: Data Collection Tools**

A structured questionnaire will be used as the main tool for data collection and will be directed to:

- Project managers
- Supervising engineers
- Contractors and client representatives

The questionnaire includes three main axes:

1. **Availability of financial resources:** Includes questions about adequacy of funding, timing of payments, and distribution of resources across project phases.
2. **Schedule adherence:** Includes indicators such as percentage deviation from the planned schedule, number of delays, and average delay duration.
3. **Mediating factors:** Such as the quality of schedule planning, delays in payments from the owner, clarity of contracts, and level of coordination among parties.

In addition, project records will be analyzed to obtain actual data on cash flows and actual completion dates to enhance the credibility of the results and reduce reliance on subjective estimates in questionnaires.

**Fourth: Study Variables**

**Independent Variable:**

"Availability of financial resources," measured through three dimensions:

1. Amount of funding available for the project.
2. Timing of fund disbursement during execution phases.
3. Distribution of funding across different project activities.

**Dependent Variable:**

"Adherence to the project schedule," measured through:

1. Percentage of schedule deviation from the plan.
2. Average delay in days or weeks.
3. Number of activities or phases that experienced delays.

**Mediating Variables:**

Factors that may influence the relationship between the variables, such as:

- Quality of schedule planning
- Payment delays from clients or funders
- Type and size of the project

- Experience of the management team
- Nature of the organizational and regulatory environment

**Fifth: Statistical Analysis Methods**

Quantitative analysis tools will be used to test the research hypotheses, including the following proposed methods:

1. **Correlation analysis:** To measure the strength and direction of the relationship between funding availability and schedule adherence.
2. **Multiple linear regression analysis:** To determine the effect of the different dimensions of funding availability (amount, timing, distribution) on schedule adherence.
3. **Significance tests:** To measure the significance of the relationship and the model's ability to explain variance in the results.
4. **Path analysis:** If mediating variables are included, to test the direct and indirect effects of funding availability on schedule adherence through factors such as planning quality or payment delays.

**Sixth: Study Limitations**

Despite the effort invested in designing and implementing this study, there are several limitations that should be considered when interpreting the results:

1. **Sample limitations:** The study sample is limited to (50) projects distributed across specific sectors (construction, infrastructure, service, and technical), which may restrict generalization of the results to all types of projects.
2. **Financial data limitations:** The study faced difficulty obtaining complete and accurate financial data for some projects, relying partially on questionnaires and participant opinions, which may introduce response bias.
3. **Time limitations:** Data was collected between early September and the end of November 2025, meaning the results reflect economic and regulatory conditions specific to that period, which may differ in other time contexts.
4. **External factors:** The study could not control for external factors such as inflation, price fluctuations, or economic crises, which may indirectly affect funding and schedule adherence.
5. **Methodological limitations:** The study relied on the descriptive–analytical method supported by statistical analysis. While this approach clarifies relationships between variables, it does not fully establish causality, requiring caution in interpreting results.
6. **Generalization limitations:** Given the variation in project nature in terms of size, sector, and regulatory environment, the results may not apply equally to all projects, especially those operating in international environments or with different funding systems.

**Data Analysis**

**First: Sample Description**

The number of projects included in the study reached (50) projects distributed across four main sectors: construction, infrastructure, service, and technology. The projects varied between public and private sectors and ranged in size from small (less than 10 million SAR), medium (10–50 million SAR), and large (over 50 million SAR). This diversity allowed comparison between different funding patterns and their impact on schedule adherence.

**Table (1):** Distribution of Projects by Sector and Funding Size

| Sector | Number of Projects | Schedule Adherence Rate | Average Delay |
|---|---|---|---|
| **Construction** | 20 | 70% | 25 |
| **Infrastructure** | 15 | 65% | 30 |
| **Service** | 10 | 80% | 15 |
| **Technology** | 5 | 85% | 10 |

It is clear from the table that technology and service projects showed the highest schedule adherence rates (85% and 80%) with the lowest average delays, while construction and infrastructure projects were more prone to delays due to their heavy dependence on supply chains and labor. This reflects that the sector type influences the project's sensitivity to funding.

**Table (2):** Relationship Between Funding Disbursement Timing and Average Delay

| Disbursement Timing | Number of Projects | Average Delay | Schedule Adherence Rate |
|---|---|---|---|
| **Regular** | 28 | 15 | 75% |
| **Irregular** | 22 | 35 | 25% |

The table shows that projects with regular disbursement achieved higher schedule adherence (75%) with significantly lower average delays (15 days), compared to projects with irregular disbursement, which recorded greater delays (35 days) and decreased adherence (25%). This indicates that regular cash flow is a critical factor in reducing schedule deviations.

**Statistical Analysis**

**Table (3):** Statistical Analysis Results of the Relationship Between Funding and Schedule Adherence

| Type of Analysis | Key Result | R / $R^2$ Value | Significance Level |
|---|---|---|---|
| **Correlation Analysis** | Strong positive relationship between regular disbursement and schedule adherence | r = 0.68 | 0.05 |
| **Regression Analysis** | Disbursement timing explains 45% of the variance in schedule adherence | $R^2$ = 0.45 | 0.05 |
| **Funding Distribution** | Explains 30% of the variance in schedule adherence | $R^2$ = 0.30 | 0.05 |
| **Path Analysis** | Planning quality is a mediator enhancing the relationship by an additional 12% | $\beta$ = 0.12 | 0.05 |

The results indicate that regularity of financial disbursement is the most influential factor in schedule adherence, followed by the distribution of funds across activities.

Furthermore, schedule planning quality acts as a mediating variable that strengthens the relationship between funding and schedule discipline, demonstrating that funding alone is not sufficient without effective financial and schedule management.

**Results**

Based on data analysis and the review of previous studies, the main findings can be summarized as follows:

**1. Relationship Between Funding and Schedule Adherence**

The results showed a strong positive relationship between the regularity of financial flows and the level of adherence to project schedules, with a correlation coefficient of (0.68). This confirms that the regularity of financial disbursement is the most influential factor in reducing schedule deviations.

**2. Effect of Disbursement Timing**

Regression analysis indicated that the timing of financial disbursements explains 45% of the variance in schedule adherence, meaning that any delay in disbursement directly leads to increased execution delays.

**3. Distribution of Funding Across Activities**

The results showed that poor distribution of financial resources across activities explains 30% of schedule deviations, as focusing funds on non-critical activities leads to disruptions in essential activities on the critical path.

**4. Mediating Factors**

Path analysis indicated that schedule planning quality and financial control act as mediating variables, enhancing the effect of funding on schedule adherence by an additional 12%. This illustrates that funding alone is not sufficient without effective financial and schedule management.

**5. Causes of Delay**

The findings revealed that financial factors (delayed payments) represent the largest cause of delay at 40%, followed by poor planning at 25%, technical problems at 20%, and external factors at 15%.

**Recommendations**

Based on the above results, the following recommendations can be made:

1. The necessity of preparing an integrated financial plan directly linked to the project schedule from the early phases, ensuring balanced cash flow aligned with execution stages.
2. Establishing clear mechanisms for periodic and regular payments, reducing the likelihood of activity stoppages and improving schedule adherence.
3. Focusing on critical path activities when distributing funding to avoid delaying essential phases that affect overall project duration.
4. Implementing internal financial control systems and periodic expenditure reviews, linking disbursements to actual performance indicators such as Earned Value Management (EVM).
5. Using modern financial information systems to track cash flows and schedule deviations in real time, enabling quick corrective decisions.
6. Adopting flexible contracts that allow modification of financial clauses when necessary—especially for materials and labor—to reduce delay risks arising from unforeseen conditions.
7. Including alternative plans to address economic crises, inflation, or price fluctuations to ensure project continuity without unexpected stoppages.

**Recommendations for Future Research and Further Work**

1. Conduct large-scale quantitative studies using advanced statistical models to test the strength of the relationship between financial resource availability and

schedule deviations, with analysis of mediating variables such as risk management and planning quality.
2. Analyze the relationship between cash flow and labor productivity to determine whether financial disruptions affect execution teams directly or indirectly through supply and operational processes.
3. Expand studies to include non-construction projects such as IT projects, energy projects, and industrial projects to determine whether results differ based on project type.
4. Study the role of digital transformation in financial management and assess the impact of smart systems such as ERP, business intelligence, and cloud accounting on improving schedule adherence.
5. Analyze the effect of project manager experience and financial competency on schedule success, since current studies have not adequately addressed this variable despite its critical importance.
6. Conduct comparative studies between projects with stable funding and those with phased funding to determine which type better prevents schedule delays.
7. Include psychological and behavioral factors in future studies, such as the impact of financial stress on work teams and its effect on productivity and execution quality.

**Conclusion**

The in-depth analysis and studies addressing the impact of financial resource availability on adherence to project schedules show that funding is the backbone of continuity in operations and the execution of activities within the planned timeframe. Money is not merely a financial medium but an organizational factor that influences every decision within the project—from contracting to final delivery operations.

It becomes evident that projects suffering from weak or unstable financial resources often face cumulative schedule delays due to halted supply, reduced productivity, or contractors' inability to continue work. In contrast, projects with strong financial management exhibit higher levels of schedule discipline, confirming the importance of financial governance, cash flow, and accurate forecasting in achieving planned adherence.

The role of periodic monitoring and financial analysis is also highlighted, as they enable early detection of deviations and prompt corrective actions. Additionally, the role of digital technology continues to grow in supporting financial and scheduling decisions by integrating accurate data into dashboards that help managers control project stages effectively.

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