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Beyond Traditional EVM: Earned Schedule as a Time-Based Alternative for Schedule Performance Measurement in EPC Projects -A Case Study at SARPI-

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Abstract: EPC project monitoring at SARPI relies on classic EVM indicators, which have known structural weaknesses for schedule tracking. This study used semi-structured expert interviews plus quantitative analysis of EVM versus Earned Schedule (ES) across three completed EPC projects. Findings show universal EVM use but no awareness of ES among institutions surveyed. Empirically, ES outperformed EVM in three ways: better detection of schedule deviations late in projects when SPI becomes unreliable, accurate time-based representation of schedule variance without distortion, and more precise duration forecasts (IEAC) early enough to enable preventive action.

Keywords: EPC projects; Earned Value Management; Earned Schedule; schedule performance; duration forecasting.

1. Introduction

Increased complexity of industrial project environments has created an increased need for effective performance monitoring and forecasting methods. Within EPC projects that have long duration, high capital involvement, and a high risk of delays and cost escalation (Akhtar, 2020), the precision of performance indicators is crucial for the success of such projects. It is especially true for the Algerian environment, where the operations performed under the EPC projects are mostly carried out by state-owned companies like SARPI within a tight time and budget framework.

Earned value management (EVM) has become the primary framework of integrated project performance measurement that includes the integration of scope, cost, and schedule information within one analytical framework through such indicators as SPI and SV. Nevertheless, a very important structural problem of unreliability of EVM schedule indicators lies within this framework. Namely, in the late phases of project execution, SPI and SV tend to converge towards neutral values 1.0 and 0 respectively, no matter whether there are any

delays in fact because of the necessity of reaching EV and BAC on the same point on the diagram (Ballesteros-Pérez & Elamrousy, 2018; Lipke, 2012). Lipke (2003) developed the Earned Schedule (ES) method - a time-based variant of EVM where the schedule performance is measured using time rather than monetary units. The major indices such as SPI(t), SV(t), and IEAC(ES) depend on the time scale and have no convergence requirement typical for the analogous cost indices.

1.1. Research Problematic

EPC projects are among the most capital-intensive industrial activities, where timely delivery is as critical as technical performance and cost efficiency. In such projects, effective schedule monitoring is essential to ensure successful execution and minimize delays.

Currently, the company relies mainly on the traditional Earned Value Management (EVM) system for project control. Although EVM provides an integrated framework for monitoring cost and schedule performance, its schedule indicators (SPI and SV) present structural limitations, particularly during the final stages of project execution, where they tend to converge toward neutral values regardless of actual delays.

This limitation raises concerns about the reliability of traditional EVM for accurate schedule assessment and forecasting. In this context, the Earned Schedule (ES) method emerges as a promising alternative, offering time-based indicators that may overcome these shortcomings.

Therefore, this research seeks to answer the following question:

To what extent does Earned Schedule provide a more reliable basis for schedule performance measurement and duration forecasting than traditional EVM indicators in EPC project management?

1.2. Research Aims

It should be understood from the outset that the primary purpose of this research study is to tackle one of the perennial problems associated with schedule delays in Algerian EPC industrial projects by proving the feasibility of using Earned Schedule as an alternative to the flawed scheduling components of EVM that will equip project management professionals with a proven time-based approach that facilitates better schedule forecasting and intervention. For the realization of this purpose, three objectives are established.

. To examine the differences in the behavior of SPI(t) and SPI over the whole period of time and see which of them remains more significant in the last stages of project execution.

. Identify the point of divergence of SV(t) and SV and find out how it influences schedule performance management in practical terms.

. To compare the forecast reliability of IEAC(EV), IEAC(PV), and IEAC(ES) at all reporting periods of three completed EPC projects.

2. Literature review:

Project Management developed into a structured practice in the 1950s-60s owing to initiatives by government and military (Fleming & Koppelman, 2010; Garel, 2013), and this happened through the development of methods like CPM and PERT. EPC contracts involve a contractor being wholly responsible for design, procurement, and construction of a project, thus providing cost and time assurance to project sponsors but needing full management control (Hansen, 2015; Loots & Henchie, 2007). The use of such a contractual arrangement increases the risk of failure because of poor interface management, lack of good front-end planning, and too tight deadlines set by the project owners being the main causes of delay in EPC contracts (Akhtar, 2020; Gibson et al., 2006).

Research work from Algeria (Rachid et al., 2019) shows that late changes orders, lack of

pre-construction design, and owner-imposed delays are main issues facing EPC projects in the country. There is higher cost overrun in big oil and gas projects in Africa than in Europe owing to local content, personnel, and politics (Rui et al., 2017).

2.1. EVM: Framework and Empirical Evidence

Recognised by (PMBOK® Guide, 2021) as the most advanced method for integrated project performance management, EVM synthesises Planned Value (PV), Earned Value (EV), and Actual Cost (AC) to produce a suite of indicators:

Table (01): Summary of Earned Value Management (EVM) Terms, Indicators, and Interpretations

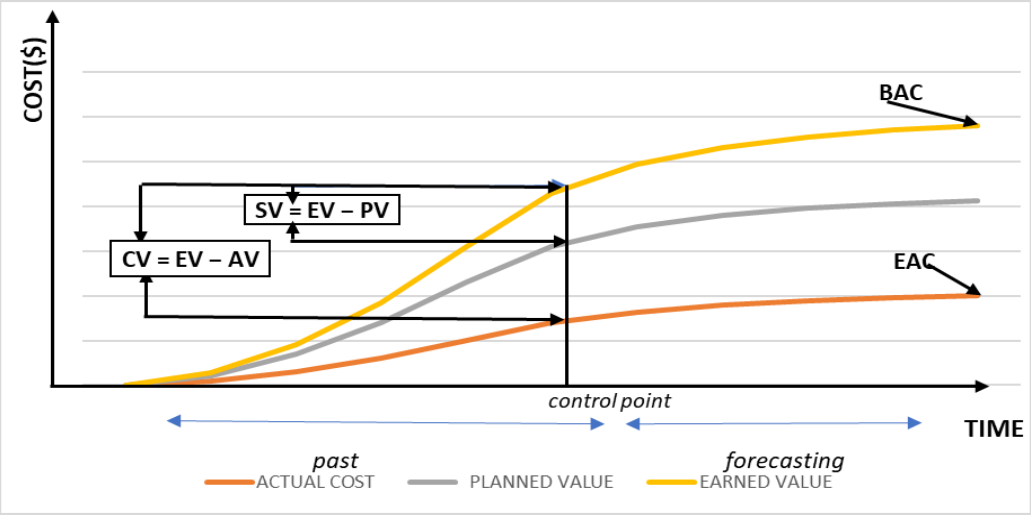
Term	Description	Interpretation
PV (BCWS)	Planned Value	It is the budgeted cost for the work scheduled to be completed on an activity or WBS component in a particular time. It is obtained from the cash flow diagram (The S-curve).
EV (BCWP)	Earned Value	It is the budgeted amount for the work accomplished on the schedule activity or work breakdown structure (WBS) component during a given time.
AC (ACWP)	Actual Cost	It is resolved from accounting records that keeps record of actual expenditure money, that means it is secret and actual money spent by the contractor.
BAC	Budget at Completion	The total approved budget when the scope of the project is completed.
EAC	Estimate at Completion	The expected total cost of the project when the defined scope of work is completed.
ETC	Estimate to Complete	The expected extra cost necessary to finish the project.
Cost Variance (CV)	EV − AC	Negative means over budget, Positive means under budget
Schedule Variance (SV)	EV − PV	Negative means behind schedule, Positive means ahead of schedule
Cost Performance Index (CPI)	EV / AC	More than 1 means Profit and less than 1 means loss.
Schedule Performance Index (SPI)	EV / PV	More than 1 means ahead of schedule and less than 1 means behind the schedule.

And duration forecasting relies on IEAC formulas based on average planned or earned work rates (Lipke, 2009):

$$IEAC(t)(EV) = AT + \frac{BAC-EV}{PVav} \qquad IEAC(t)(PV) = AT + \frac{BAC-EV}{EVav}$$

As shown in Figure 1 below, there is the basic EVM metric model. Research proves the efficiency of EVM for cost control: (Proaño-Narváez et al., 2022) showed a 14.20% economic benefit on the project managed through EVM compared to a 3.24% cost overrun on the same project not managed through EVM. It was determined by (Henderson, 2003) that the CPI stabilises at over 20%.

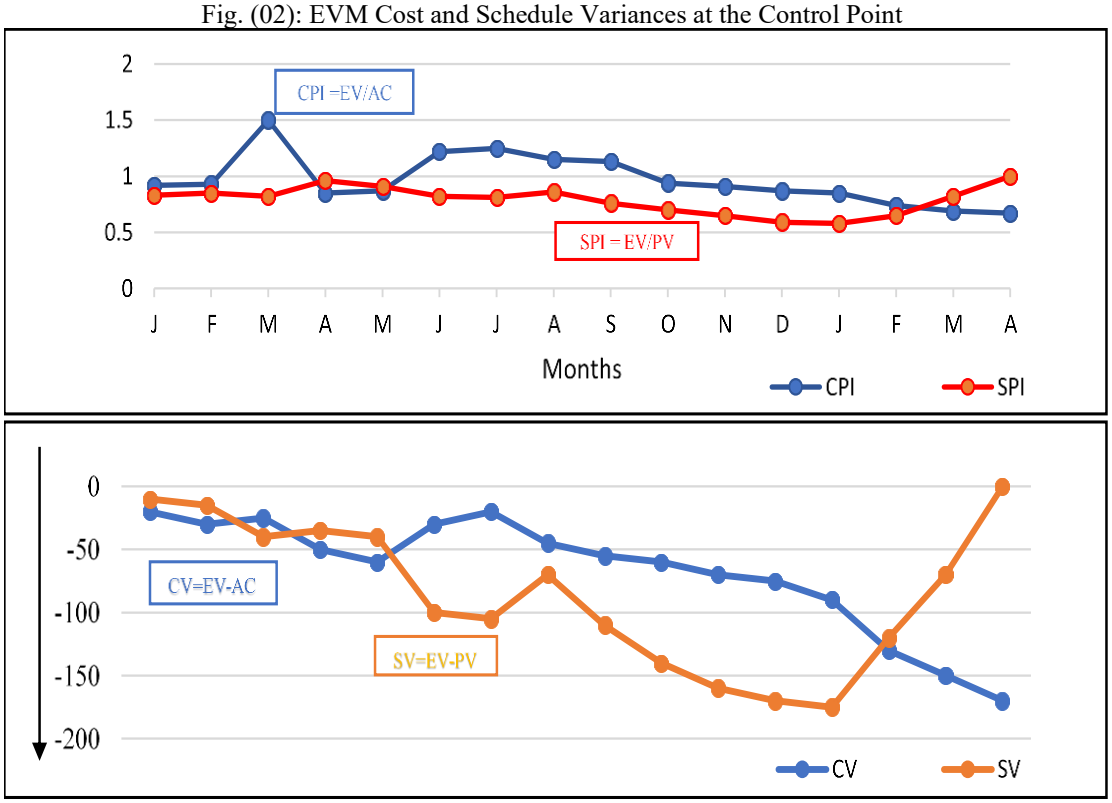
Fig.(01): Key Metrics of the EVM Technique.



Source: Elaborated by Authors, adapted from Proaño-Narváez et al. (2022)

The inherent drawback with respect to EVM scheduling parameters can be defined mathematically and is unavoidable. As per the findings of (Lipke, 2012), both SV and SPI approach values of zero and 1.0 respectively, as EV approaches the value of BAC, regardless of the delay in completion of the project. It is not an error in measurements, but an outcome of using cost axis instead of time axis for determining schedule performance. Figure 2 illustrates this divergence between cost and schedule variance behaviour.

Fig. (02): EVM Cost and Schedule Variances at the Control Point



Source: Elaborated by Authors, adapted from Lipke (2012)

According to (Ballesteros-Pérez & Elamrousy, 2018), EVM produces an overly optimistic schedule assessment of complex projects with multiple paths by overlooking the factors of activity duration variability and merge point bias inherent in EPC projects. EVM also does not check whether the planned activities have been completed in the right order, leading to potential distortion of actual project progress status. (Agumalu, 2022) notes that EVM is a reactive

measure that falls short in predicting project performance.

2.2. The Earned Schedule Approach

The Earned Schedule technique, developed by Lipke (2003), addresses the issue of convergence by using the current EV for plotting on the PV S-curve to derive the corresponding time equivalent ES indicator. Two performance measures arise as a consequence:

$$SV(t) = ES\text{-}AT \text{ and } SPI(t) = ES / AT$$

Where AT is Actual Time elapsed. While the corresponding cost metrics lose diagnostic sensitivity after project closure, which includes beyond the originally scheduled completion time of the project (Henderson, 2003; Vandevoorde & Vanhoucke, 2006), the duration forecasting metrics based on ES consider:

$$IEAC(ES) = PD / SPI(t)$$

Here, PD represents the planned duration. This equation is based only on time efficiency without being influenced by any cost performance issues that may occur in the case of IEAC(EV) and IEAC(PV). According to (Bruchey, 2012), IEAC(ES) performed better than any other cost-based forecasting techniques in all stages of the project. In (Lipke, 2015) using 16 real projects, ES forecasting was proven to be satisfactory to very satisfactory in 95% of the project life with a tolerance level of 10%.

2.3. Research Gap

Although both empirical and theoretical evidence strongly support the superiority of Earned Schedule (ES) over traditional Earned Value Management (EVM), practical applications using real-life EPC project data remain very limited. Existing studies are mainly concentrated in sectors such as defense procurement, information technology, or specific organizational contexts, which limits their generalizability to industrial EPC construction projects. For instance, Walter Lipke (2009) demonstrated that ES was consistently more accurate than EVM across seven project completion levels in sixteen projects; however, the study was restricted to a small sample of IT and high-tech projects. Similarly, Stephan Vandevoorde and Mario Vanhoucke (2006) found that ES was the only reliable forecasting method throughout the full project lifecycle, particularly during late phases, but their analysis was limited to only three projects within one Belgian company. Furthermore, David Bruchey (2012) concluded that IEAC(ES) outperformed all EVM forecasting methods based on Mean Squared Error (MSE) analysis, although the study focused exclusively on Department of Defense (DoD) projects. Therefore, there remains a significant research gap regarding the application and validation of ES in the EPC industrial construction sector, particularly in Algeria. This study aims to address this gap by providing the first empirical validation of ES within the Algerian EPC environment using complete monthly datasets from three SARPI projects.

3. Methodology:

Convergent mixed method design was adopted where qualitative institutional analysis was combined with quantitative lifecycle performance analysis. Qualitative analysis describes ES awareness and the nature of EVM practices at the organizational level; while the quantitative part tests the performance of ES indicators against EVM indicators in three completed EPC projects.

3.1. Study Context and Data Sources

This study was done at SARPI (Société Algérienne de Réalisation de Projets Industriels), a fully government-owned EPC Contractor, active mainly in the Algerian oil, gas, and energy industry. Data were collected from DSPE (Direction of Strategy, Planning and Economics) of SARPI during the internship program. Three projects for which lifecycle data were available up to their completion were selected. The main requirement for selection is the availability of the Budget at Completion (BAC) and the three variables in all time periods: planned

completion percentage, actual completion percentage, and Actual Cost (AC). Characteristics of the three projects are provided in Table 2.

Table (02): Summary of EPC Projects Analyzed

Project	Description	BAC (DZD)	Planned Duration	Delay
P1	Multiphase pumping station, Rhourde Chegga (Hassi Messaoud)	17,280,000,000	40 months	Yes
P2	EPC connection of 14 Cambro-Ordovician wells, Hamra	9,156,000,000	32 months	Yes
P3	Tinrhert–Adrar gas field development (full development)	7,470,300,000	38 months	Yes

Source: SARPI DSPE, performance records 2021–2026

PV and EV for each period were derived as: PV = Planned Completion Rate × BAC; EV = Actual Completion Rate × BAC. All downstream EVM and ES indicators were calculated from these primary values.

3.2. Qualitative Component: Semi-Structured Interviews

Four semi-structured interviews were carried out with specialists in the field of SARPI project controls: a Budget and Management Control Engineer (DSPE), the Head of Budget and Management Control (DSPE), the Planning Manager and Project Control specialist (DPM), and the Director of DSPE. The interviews took place in May 2026. A structured interview guide that involved three thematic axes was used, namely: (i) current practices for forecasting and controlling, (ii) EVM practice and its drawbacks, and (iii) knowledge of Earned Schedule and its potential for implementation.

3.3. Quantitative Indicator Calculation

EVM and ES indicators were computed at each monthly reporting period for all three projects. The complete formula set is presented in Table 03.

Table (03): EVM and ES Indicator Formulae

Indicator	Formula	Basis
SV	EV − PV	Cost-based
SPI	EV / PV	Cost-based
ES	n + (EV − PV_n) / (PV_(n+1) − PV_n)	Time-based
SV(t)	ES − AT	Time-based
SPI(t)	ES / AT	Time-based
IEAC(PV)	AT + (BAC − EV) / PV_av, where PV_av = PV_cum / n	Cost-based
IEAC(EV)	AT + (BAC − EV) / EV_av, where EV_av = EV_cum / n	Cost-based
IEAC(ES)	PD / SPI(t)	Time-based

Source: Elaborated by authors, adapted from Lipke (2009, 2012)

Forecasting accuracy was assessed at each reporting period using the percent difference from actual final duration (FD):

$$\text{Percent Difference} = ((\text{IEAC}(t) - \text{FD}) / \text{FD}) \times 100$$

A smaller absolute percent difference indicates higher forecasting accuracy.

3.4. Analytical Tests

Test 1 examined the development of SPI(t) and SPI throughout all reporting periods for each project, where 0.90 was selected as the threshold value below which schedule performance was deemed significantly degraded.

Test 2 found out the completion percentage at which the structural separation of SV(t) and SV starts, which is defined as the point when SV starts increasing back towards zero and SV(t) keeps falling down. Dual axis time series plots were used to illustrate this separation process.

Test 3 calculated the percent difference between IEAC(ES), IEAC(EV) and IEAC(PV) from actual duration at each reporting period throughout all three projects.

An average plot was also created for each test in order to examine the behavior of all three projects collectively.

4. Results & Discussions

The empirical results from the study will be presented in this section in two different segments; firstly, the themes extracted from the interviews held using the semi-structured format with SARPI experts, and secondly, the results from the cases studies based on the Earned Schedule approach.

4.1. Qualitative Findings: Institutional EVM Practice and ES Awareness

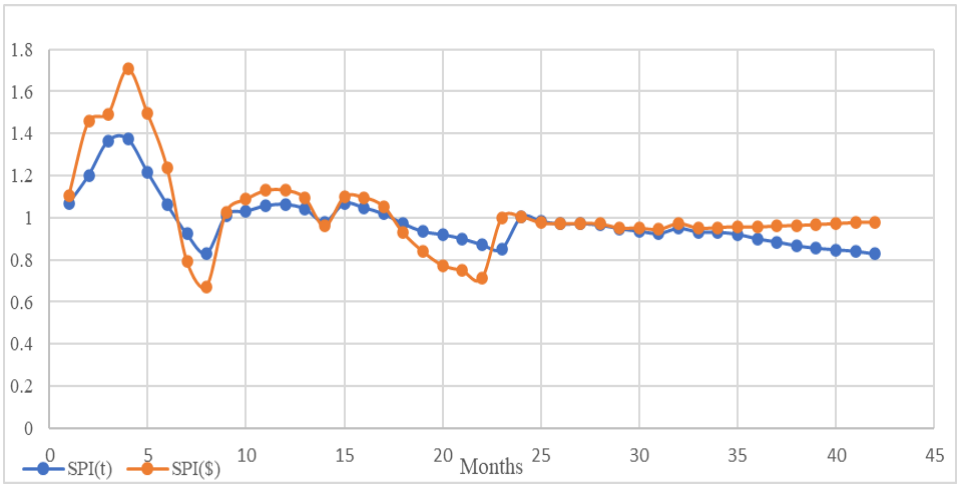
Thematic analysis of the four interviews yielded three common organizational trends. Firstly, EVM has been completely institutionalized in SARPI, with all metrics, namely PV, EV, AC, CPI, SPI, and SV, systematically calculated for all EPC project phases and incorporated in directorate-level decision-making and reporting processes. Secondly, senior managers independently and without any prompting identified convergence limitation of EVM scheduling indicators: three out of four interviewees stated that SPI tends to converge to 1.0 and SV tends to converge to 0, as the project comes to an end, regardless of how long the project has been delayed, producing erroneous performance information when management needs it the most. Thirdly, not a single one of the four interviewees, ranging from engineers to directors, ever heard about the Earned Schedule approach before.

4.2. Quantitative Findings

4.2.1. Test 1: SPI(t) vs. SPI Diagnostic Sensitivity

The first test focuses on the pattern of development of SPI(t) and SPI in three completed EPC projects by SARPI through use of the value 0.90 as a measure for significantly degraded schedule performance. In all three examples, the two metrics share a common pattern of development in the initial stage of the project, yet they have different behavior as the project develops towards completion

Fig.(03): SPI comparison over time Project 1



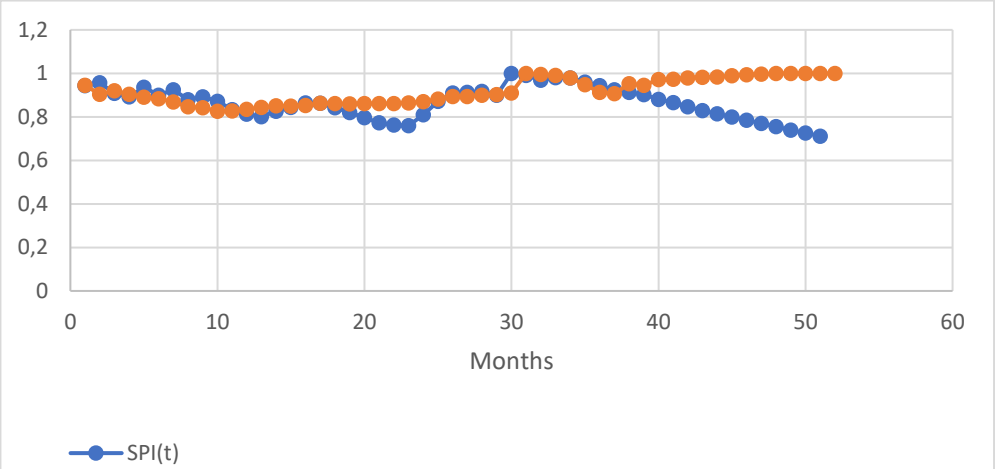
Source : Elaborated by authors

For instance, the trend of SPI(t) and SPI seems very similar in the initial and middle stages of Project 1, though SPI is highly volatile and attains greater peak values. At the later stages,

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however, the SPI begins to move towards 1.0, while the SPI(t) keeps falling to finally end up at a distinctly lower value. This implies that as the project nears completion, SPI begins to lose its relevance as a diagnostic measure.

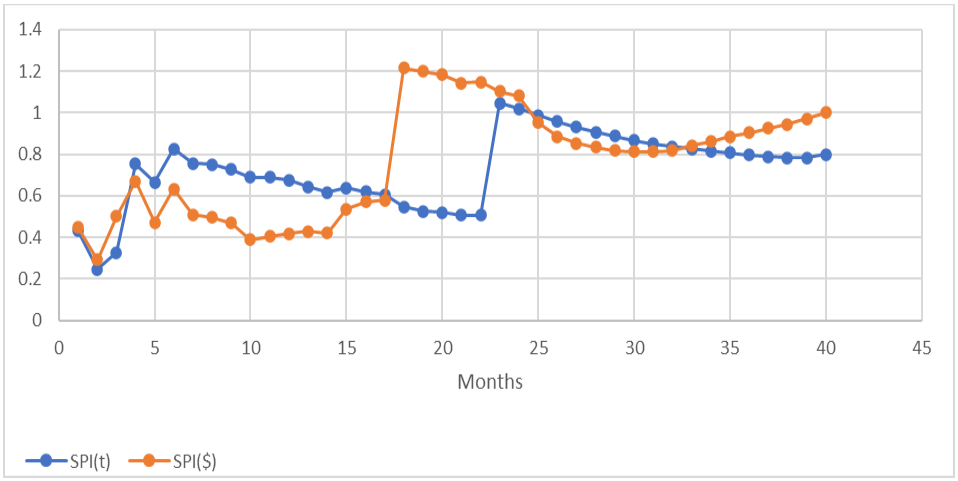
Fig.(04): SPI comparison over time Project 2



Source : Elaborated by authors

In Project 2, there is a very evident difference in terms of the structure of both the indicators. In the early phases, SPI(t) and SPI are fairly similar to each other, but beyond this point, SPI increases continuously and approaches the value of 1.0, despite the fact that SPI(t) continues decreasing and settles at around 0.70.

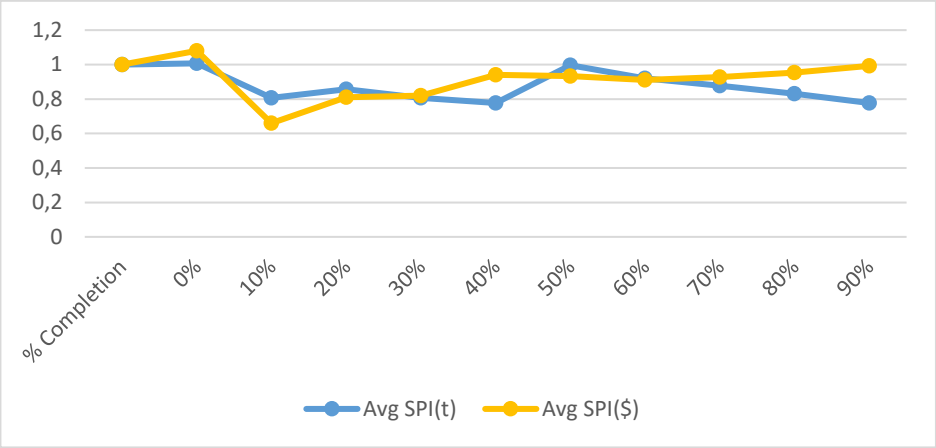
Fig.(05): SPI comparison over time Project 3



Source : Elaborated by authors

In Project 3, too, the pattern remains the same, except for one important difference SPI(t) and SPI increase dramatically between periods 17 and 23 and reach above 1.0 for a brief period of time. This short-term upward movement is due to the change in performance measurement that occurs as a result of project events, not because there has been a recovery in the project schedule. After period 24, the indices show the same trend as seen in the other projects.

Fig.(06): Average SPI comparison over the projects completion %



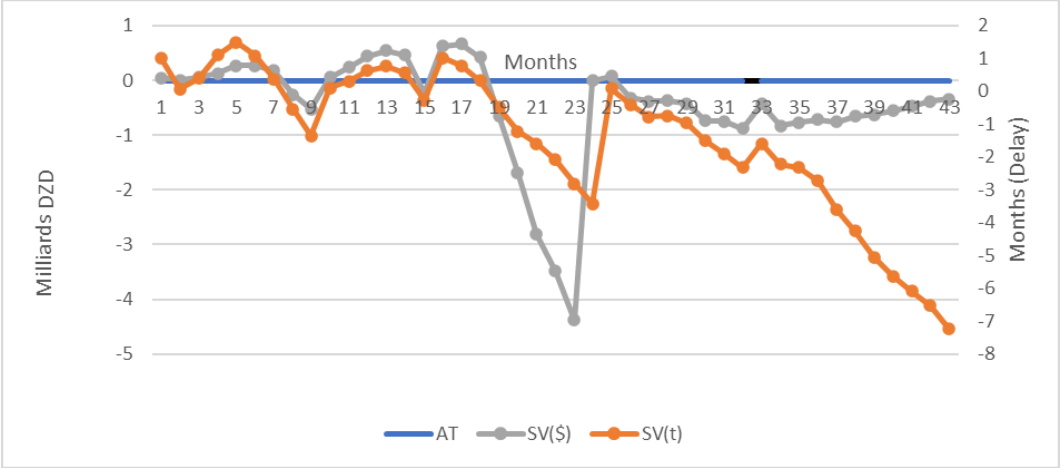
Source : Elaborated by authors

As can be seen from the averaged results, the difference is systematic and does not depend on the project. In the initial 20 percent of the project duration, SPI(t) and SPI show very similar performance, both beginning with 1.0 and then decreasing to levels below 0.90. Once the project reaches a point of approximately 50 percent of its duration, there is an evident difference between the two indicators, SPI begins to return and converge towards 1.0 level, while SPI(t) continues to decrease below 0.90 level and reaches around 0.78 at the end of the project.

4.2.2. Test 2 : SV(t) vs. SV Divergence Point

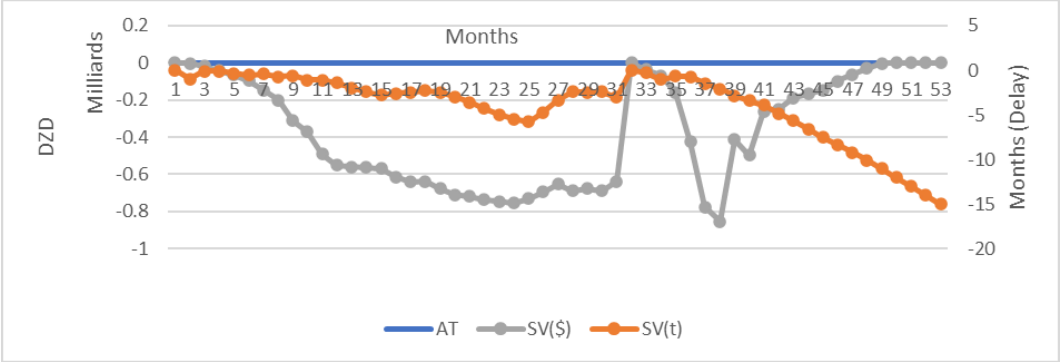
Test 2 determines the completion percentage when SV(t) and SV start to structurally differ which means the time when SV starts increasing again to reach zero level, but SV(t) keeps decreasing. Both measurements are displayed on two vertical axes (SV is measured in billions DZD and SV(t) is in months), using Actual Time as a zero level.

Project 1



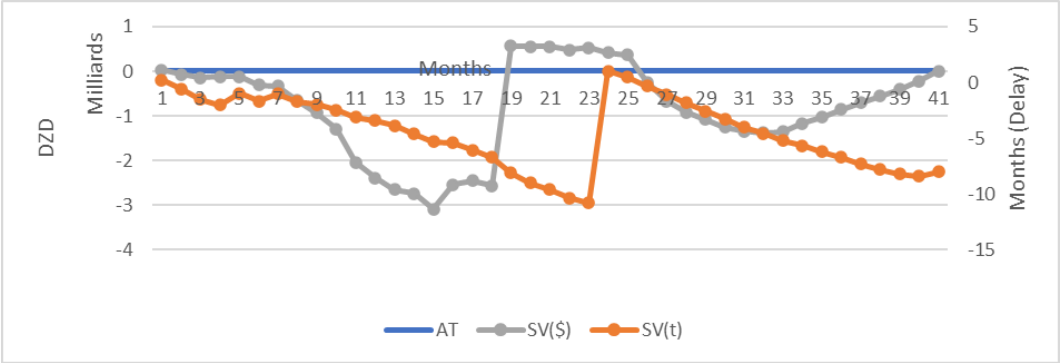
Both indicators begin falling together into negative territory up to the first two-thirds of the process. This is where the split starts. It happens at around 78% of the total process. From there, SV begins moving back towards zero, whereas SV(t) keeps falling until it reaches −7 months at completion.

Project 2



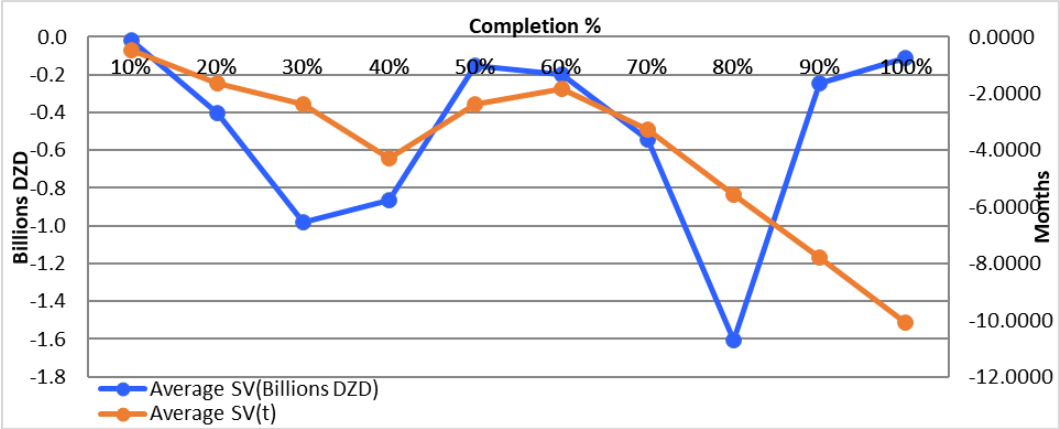
SV and SV(t) start off decreasing together during the first 26.5 months of the 53-month-long project with SV going down to −0.85 billion DZD when it starts increasing. The point of divergence happens at 79% completion rate where SV goes to zero while SV(t) goes to −15 months.

Project 3



A spike in both measures (due to a change in the baseline, and not an actual improvement), is observed in both periods 17-23 and breaks this trend for a short while. Behavior of the indicators returns to normal after period 25, when SV improves to approach zero and SV(t) drops to about −8 months, diverging with ~77% progress.

Average divergence



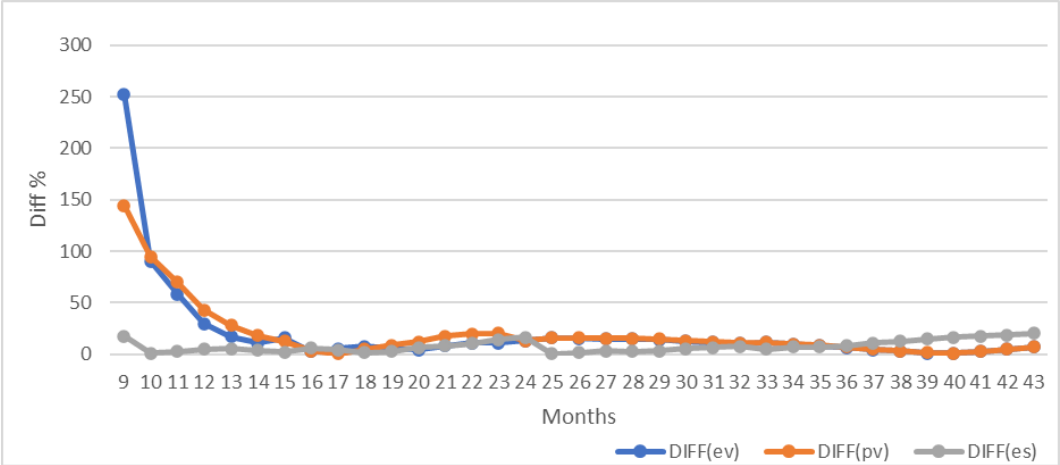
This averaged profile illustrates how both these values decrease simultaneously until reaching 40% completion; however, the crucial point of divergence is ~88%. Further on, SV equals 0, and hence provides a misleading sense of schedule recovery, while SV(t) is equal to −10 months.

The same trend repeats for all three projects SV conceals the remaining delay exactly in the range of 77–81% of completion.

4.2.3. Test 3 Duration Forecasting Accuracy

Test 3 determines the forecasting effectiveness of IEAC(EV), IEAC(PV), and IEAC(ES) through the percent difference (DIFF%) obtained between forecasted final durations and actual duration at each reporting period. A low and stable DIFF% is an indication of a good method.

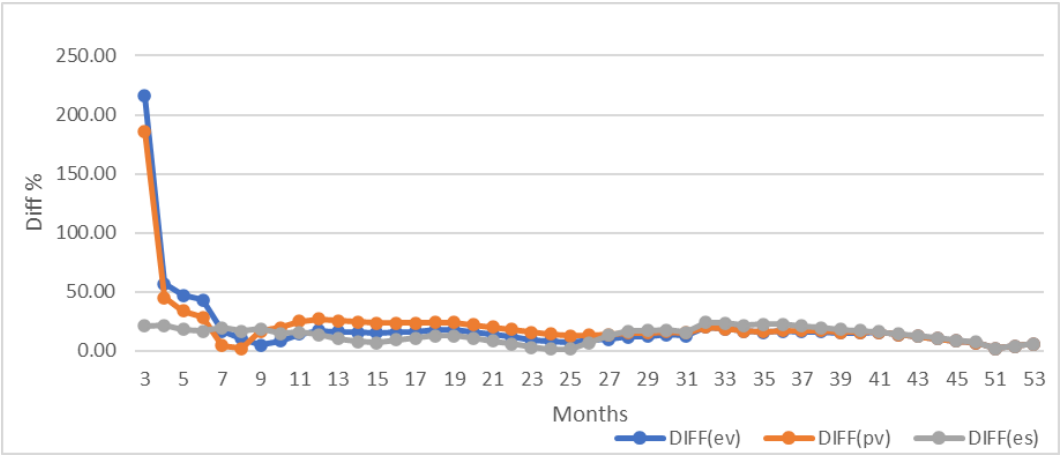
Project 1



DIFF(EV) and DIFF(PV) begin around 255% and 145%, respectively, by month 9, dropping dramatically to stabilize at approximately 10-20%. DIFF(ES), on the other hand, is consistent at 0-20%, indicating its higher accuracy and stability.

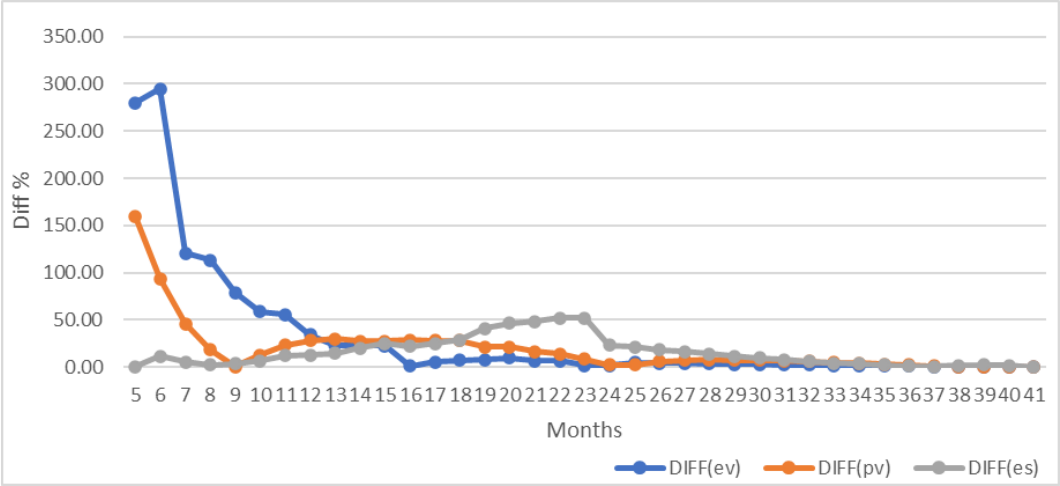
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Project 2



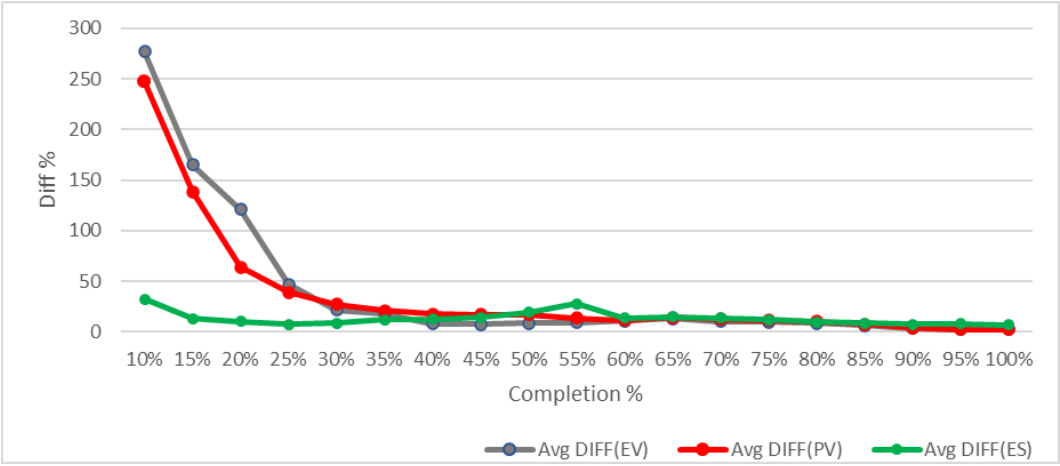
In case of DIFF(EV) and DIFF(PV), the values begin around 215% and 185% in month 3 and decrease dramatically to converge into a 10%-25% range up to close out at month 53. DIFF(ES) remains constant within 0%-25% range from the beginning of each reporting period. Confirming its consistent reliability.

Project 3



DIFF(EV) and DIFF(PV) peak at approximately 295% and 160%, respectively, at Month 6 and then stabilize between 10-30% from Month 13. DIFF(ES) is nearly always zero with only one exception where there is an increase of about 55% between Month 17 and Month 23 owing to a project-specific adjustment in the baseline value.

Average forecasting accuracy



Both AVG DIFF(EV) and AVG DIFF(PV) are approximately equal to 275% and 250% respectively at 10% of the project progress and reduce very quickly to zero. In contrast, AVG DIFF(ES) is limited between 8-35% throughout the whole life cycle except for a second smaller peak at 55% progress. The reliable duration forecasting can be achieved by using IEAC(ES) since the beginning of the reporting period while IEAC(EV) and IEAC(PV) are reliable starting from approximately 30% of project progress.

4.3. Discussion

The following interpretation refers to the results of qualitative interviews held at SARPI as well as the quantitative analysis of three tests performed on data related to EPC projects.

4.3.1. Interview Findings

EVM has been fully institutionalized at SARPI and is constantly used in all stages of each project implementation process along with all necessary indicators (PV, EV, AC, CPI, SPI, SV). Even though such an advanced use of the model still has its limitations, 3 out of 4 participants have stated that SPI and SV lose their informative capabilities closer to the end of a project and that cost-denominated schedule indicators are fundamentally incapable of providing reliable time forecasts in the whole project lifecycle. Most importantly, none of the respondents has ever heard about Earned Schedule as a possible solution. Nevertheless, all four participants agreed to

consider using other time forecasting techniques that would prove to be effective on real-life projects.

4.3.2. Test 1 SPI(t) vs. SPI Diagnostic Sensitivity

The results from Test 1 prove that SPI is theoretically limited based on Lipke (2012) since as EV moves closer to BAC, SPI mathematically moves closer to 1.0. This means that SPI loses its significance towards the end of the project, which happens to be the period when reliable information on schedule is most important. However, SPI(t), which is based on time and not cost, is fully diagnostic throughout. For instance, the average SPI(t) in Test 1 shows that at 90% completion of the projects, SPI(t) is at 0.78 giving a clear signal that delays have continued throughout all projects whereas SPI is already at 1.0 with no useful information at all. A company depending on SPI alone is likely to receive a misleading signal during the second half of the project.

4.3.3. Test 2 SV(t) vs. SV Divergence Point

Test 2 shows that SV and SV(t) possess equal informational content up to only around the first 80% of project execution. During the initial and intermediate periods, both measures behave similarly, i.e., point in the same direction and provide the same schedule information. After the ~80% completion level, SV regains towards zero not due to any improvement in schedule status but due to the mathematical nature of the EVM model in which EV-PV will be forced to decrease when earned value approaches the BAC. The regression effect is deceptive since there is an increasing delay in terms of time throughout the entire execution of the project. SV(t) measure was not affected by this artificial effect; therefore, the average delay of about 10 months was calculated at the end of the projects using SV(t), whereas SV had reached zero. Using SV(t) measure for the second half of the EPC projects execution will allow managers to have a true and useful value of remaining schedule variance, which can help correct any issue at the right time. These results corroborate the theoretical findings of Lipke (2012) and the empirical conclusions of Vandevoorde & Vanhoucke (2006).

4.3.4. Test 3 Duration Forecasting Accuracy

IEAC(ES) provides the most direct proof of the superiority of IEAC(ES) over cost-based methods for practical forecasting purposes. Both IEAC(EV) and IEAC(PV) suffer from the same basic problem – high dependence on cumulative average cost-based work rates, which makes them extremely sensitive to early variances in performance. IEAC(EV) and IEAC(PV) deliver forecast errors of up to ~275% and ~250% correspondingly at 10% of completion point only converging to the actual duration near project close-out when any forecasting is already of little use for management decisions. IEAC(ES) is much less affected by cost-based variances since it relies exclusively on SPI(t) indexed by time. All three projects display relatively small DIFF(ES) between 8% and 35% all through the project life-cycle, delivering usable duration forecasts starting from very early stages. The short-term peak of DIFF(ES) reached in Project 3 during months 17-23 (~55%) is caused by the same project-specific base line revision identified in Test 1 and Test 2. In general, IEAC(ES) delivers earlier, smoother and faster convergence to the actual duration than any of the cost-based forecasting methods. Thus, it is the superior duration-forecasting tool in EPC environment. This result is in agreement with Bruchey (2012) and Lipke (2009).

5. Conclusion

The current research experimentally tested the reliability of Earned Schedule (ES) against conventional EVM approach in terms of schedule monitoring and forecasting duration for EPC project management at SARPI, applying a mixed methodology including semi-structured interviews and three quantitative tests performed on three EPC projects completed entirely.

The data from the interviews proved that EVM was entirely institutionalized at SARPI irrespective of its level, but still 3 out of 4 mentioned the same structural problem: SPI and SV gradually approached neutral positions near completion, becoming unreliable right when

schedule information was needed. None of the interviewers had any previous knowledge about Earned Schedule.

The three quantitative tests provided coherent results for all projects. Test 1 proved that after 50% project completion, SPI artificially increased to 1.0, whereas SPI(t) showed real delay with an average position of 0.78 by the end of the process. Test 2 revealed the divergence point of approximately 80%, after which SV indicated schedule recovery artificially, although SV(t) showed −10 months of accumulated delays on average. The third test confirmed that the narrow error band of forecast errors lies within 8-35% with IEAC(ES), but the errors associated with IEAC(EV) and IEAC(PV) exceed 250% at 10% level of project completion and are approaching the convergence point when correction of errors becomes impossible

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Submissions to Finance and Business Economics Review (FBER) must be grounded in relevant and up to date peer-reviewed, academic research, and this should be reflected in the accompanying reference lists.

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