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A Study on Agile Methodology in Export and Import Documentation Operations

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Abstract: The landscape of international commerce has undergone rapid shifts owing to digital adoption, fluctuating market demand, and stricter customs requirements, placing export-import paperwork at the centre of each shipping transaction. This paper investigates the way agile working practices — namely iterative planning with sprint-driven task management, interdepartmental teamwork and collaboration, and ongoing process refinement through retrospective reviews — connect with how efficiently documentation work gets done at A Case Company, an exhibition logistics and freight forwarding firm headquartered in Dubai. The researcher chose a descriptive, cross-sectional approach for this inquiry. Eighteen employees, picked through purposive selection from the Documentation, Operations, Customer Service, Customs and Compliance, and Finance and Administration units, filled out a structured five-point Likert-scale survey instrument. Additional data came from published academic journals, market analyses by Mordor Intelligence and IELA, official UAE customs documents, and internal company records. Twenty questionnaire items captured four constructs — Iterative Planning, Cross-Functional Collaboration, Continuous Improvement, and Operational Efficiency — and the resulting data were processed in IBM SPSS Statistics with frequency counts, Cronbach's Alpha reliability checks, Chi-Square independence tests, Pearson correlation, One-Way ANOVA, and Multiple Linear Regression. Internal consistency turned out to be very strong: the overall Cronbach's Alpha stood at 0.939, while individual construct alphas fell between 0.912 and 0.968. Pearson's correlation coefficients pointed to meaningful positive links between Operational Efficiency and each of the three practices: Iterative Planning ($r = 0.706$, $p = 0.001$), Continuous Improvement ($r = 0.727$, $p = 0.001$), and Cross-Functional Collaboration ($r = 0.580$, $p = 0.012$). A multiple regression model showed that these three agile dimensions together account for 67.4 per cent of the variation in Operational Efficiency ($R^2 = 0.674$, $F = 9.663$, $p = 0.001$), and among them Iterative Planning carried the most weight as a predictor ($\beta = 0.449$, $p = 0.025$). On the whole, the findings suggest that investing in better iterative planning routines, regular stand-up meetings, and formalised retrospective sessions gives A Case Company— and similar Dubai-based forwarders — a tangible way to cut documentation cycle time, boost first-time-right accuracy, and lift staff engagement.

Keywords: *Agile Methodology, Iterative Planning, Cross-Functional Collaboration, Continuous Improvement, Operational Efficiency, Export-Import Documentation, Freight Forwarding, Exhibition Logistics, Dubai, UAE.*

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I. INTRODUCTION AND BACKGROUND OF THE STUDY

Over the last ten years, world trade has gone through considerable change driven by the spread of digital tools, unpredictable swings in demand, increasingly rigid regulatory frameworks, and growing expectations on freight forwarders to shorten their turnaround windows. At the core of this shifting environment lies the paperwork that accompanies every export and import shipment. Every shipment that clears a port or airport depends on a tightly orchestrated chain of paperwork — commercial invoices, packing lists, bills of lading, airway bills, certificates of origin, letters of credit, phytosanitary and dangerous-goods certificates, and customs declarations — each of which must be prepared, validated, transmitted and archived under narrow time windows. Under conventional, plan-heavy setups these tasks follow one after another in a fixed sequence, but when demand shifts unexpectedly or rules get updated partway through the quarter, that rigid approach tends to crack under pressure and push costs upward.

Agile working, which first took formal shape with the 2001 Manifesto for Agile Software Development, puts forward a different way of organising work. Teams following agile principles operate in brief work cycles, treat change as something expected rather than disruptive, depend on collaboration across different functions, and keep track of progress on visible boards while holding regular retrospective sessions aimed at steady improvement. Though agile thinking

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originated in the software world, its underlying ideas have since spread to marketing, human resources, manufacturing, and — with growing frequency — logistics. Exhibition logistics and freight forwarding, characterised as they are by project-style rhythms, documentation-intensive workflows, and considerable variability, lend themselves well to agile adoption.

A Case Companyoperates out of Dubai as an exhibition logistics and freight forwarding firm whose work spans time-sensitive exhibition cargo for events at the Dubai World Trade Centre and Expo City Dubai through to project-cargo paperwork along GCC trucking routes. Documentation volumes at the company fluctuate considerably, submission deadlines leave little room for delay, and even a single mistake can result in a costly shipment being held up at customs. This makes the company a fitting context for exploring whether agile techniques, borrowed from software engineering and placed into a regulated logistics setting, can bring about real, measurable gains in documentation efficiency. The present paper tackles this question using first-hand empirical data gathered from within the organisation.

➢ *Statement of the Problem*

For Dubai-based freight forwarders, the documentation function is both indispensable and constantly squeezed by erratic customer demand, narrowing customs compliance windows, and the continuing shift toward paperless trade pushed by Dubai Trade and the Mirsal 2 system run by Dubai Customs. Most mid-sized forwarding companies still run their documentation on a step-by-step, plan-first workflow that copes well enough with routine shipments yet visibly struggles during exhibition cargo surges, when last-minute changes come in, or when clearance is needed across multiple jurisdictions. Agile methodology has been put forward as a possible alternative, but hard evidence on whether it actually works inside export-import documentation — especially within the UAE and broader Middle East — is still scarce, and practitioners do not yet have a clear picture of which specific agile practices carry the most weight, how they relate to one another, or what kind of efficiency improvements can genuinely be expected. The current study steps into that gap by measuring, with primary data, how three agile practices relate to operational efficiency within the documentation unit of A Case Company , and by mapping out a workable plan that the company and other Dubai forwarders can follow when adopting agile methods for concrete efficiency improvements.

➢ *Objective of the Study*

- *Primary Objective*

To look into and propose ways of applying agile methodology practices — specifically iterative planning, cross-functional collaboration, and continuous improvement — within the export-import documentation operations of A Case Company, Dubai, with the aim of raising operational efficiency as gauged by cycle time, first-time-right rate, responsiveness, and employee engagement across the UAE exhibition-logistics and freight-forwarding sector.

- *Secondary Objectives*

✓ To gauge how far agile methodology has been taken up and how operational efficiency is perceived by documentation and related staff at A Case Company.
✓ To look at the agile practices, collaboration arrangements, and continuous-improvement habits used by comparable freight forwarders and exhibition-logistics companies operating in the UAE.
✓ To pinpoint which agile practice — iterative planning, cross-functional collaboration, or continuous improvement — has the biggest bearing on operational efficiency for documentation personnel.
✓ To put together a realistic, budget-conscious roadmap for expanding agile use within export-import documentation at A Case Companyand at similar forwarders based in Dubai.

➢ *Need of the Study*

- Supports the documentation team at A Case Companyin transitioning away from a traditional, one-step-at-a-time workflow toward one that is structured around short iterations and ongoing refinement.
- Gives management a clear steer on which agile practice yields the highest marginal return in documentation efficiency, so that investment can be channelled accordingly.
- Helps the company get more out of its current workforce, digital platforms, and customs-interface tools so that shipment throughput and accuracy can grow steadily over time.
- Provides practical takeaways that other GCC-based freight forwarders and exhibition-logistics operators dealing with comparable documentation challenges can put to use.
- Adds to the academic conversation around what happens when agile methodology, rooted in software development, is brought into regulated logistics operations within the UAE.

➢ *Scope of the Study*

- Takes in A Case Companyalong with a selection of peer freight forwarders and exhibition-logistics firms across the wider UAE market.
- Draws its primary respondents from documentation executives, operations executives, customer service staff, supervisors, and managers.
- Confines itself to export-import documentation and the cross-functional practices surrounding it, leaving out tariff policy, pricing negotiation, and purely warehouse-related activities.
- Geographically centred on Dubai, though a handful of respondents come from the UAE freight-forwarding industry more broadly.
- Data were collected during January 2026 – March 2026.

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➢ *Limitations of the Study*

- The sample was capped at 18 participants because of time, access, and budget limitations within one freight forwarding firm.
- Because the study uses perception-based Likert-scale responses, it was not possible to directly measure actual sales figures, long-run behavioural shifts, or precise cycle-time changes.
- The results are rooted in the exhibition-logistics corner of UAE freight forwarding and may not transfer seamlessly to other logistics segments.
- Given how quickly UAE customs rules, paperless-trade programmes, and regional trade routes are evolving, the shelf life of these findings could be limited.
- There is also a possibility of mild response bias, since all participants work for A Case Company.

II. REVIEW OF LITERATURE

- Zielske, Held & Kourouklis (2022) – A Framework on the Use of Agile Methods in Logistics Startups. Their work explored agile method usage among logistics startups, employing a Delphi panel of twenty-nine specialists and then a worldwide survey covering ninety-five practitioners. What emerged was that iterative planning paired with sprint-driven workflows topped the list of adopted practices, while quicker customer feedback loops and waste reduction were the advantages practitioners mentioned most. The resulting framework tied iteration length to how mature the organisation was and lent support to the idea that sprint-based planning helps drive operational efficiency within logistics.
- Moe, Dingsøyr & Dybå (2021) – A Teamwork Model for Understanding an Agile Team. Drawing on nine months of ethnographic fieldwork embedded with a Scrum team, the researchers built a teamwork model centred on shared leadership, mutual performance oversight, and the capacity to adapt. Collaboration across functional boundaries stood out as a key ingredient of agile performance, underpinned by the psychological safety and trust that allowed people to work together effectively even when deadlines pressed. Daily stand-up meetings served as a coordination glue, and because the whole team shared ownership of the backlog, handover hold-ups dropped noticeably. Overall, the study reinforced the centrality of collaboration to making agile work well.
- Stray, Moe & Hoda (2023) – Autonomous Agile Teams: Challenges and Future Directions. This paper took a close look at self-managing agile teams and the role retrospective sessions play in helping them improve continuously. Through a structured review of existing research combined with direct case observation, the authors found that retrospectives had the tightest link to team learning and the maturing of internal processes. Teams which retained and acted on retrospective outcomes showed measurable improvements in flow and defect density, and facilitation quality and psychological safety shaped retrospective effectiveness. The paper frames retrospectives as rituals through which the organisation learns.
- Wang & Pettit (2022) – Digital Transformation of Maritime Logistics and Customs Documentation. A pool of one hundred and twelve published studies on digitalisation in maritime logistics and customs documentation was reviewed. The review showed that digital platforms and automated tools brought about sizeable reductions in both documentation turnaround time and error rates for customs declarations, bills of lading, and commercial invoices. Of all the factors examined, the ability of carrier, forwarder, and customs systems to talk to one another proved the single most important enabler. By connecting documentation digitalisation with operational efficiency, the review also proposed a reference framework others could use when assessing how far maritime documentation has been transformed.
- Anifa, Ramakrishnan, Kabiraj & Joghee (2024) – Systematic Review of Literature on Agile Approach. More than ninety studies on agile methodology, drawn from software, manufacturing, and service-industry research, were pulled together in a systematic review. The clearest finding was that breaking work into short, time-boxed planning cycles kept coming up as the practice most reliably tied to faster delivery and higher customer satisfaction. Beyond that, the paper charted agile's historical development and its uptake trajectory, while also flagging barriers such as cultural pushback and insufficient training. It reinforces why time-boxed iterations matter in fast-moving markets and lays down a consolidated conceptual base for future empirical work.
- Ahmed, Hossain, Arefin & Islam (2024) – Digitalisation of Trade Documentation and Operational Performance in Freight Forwarding. Two hundred and thirty-four freight forwarders spread across four emerging economies were surveyed to explore how the digitalisation of trade documentation relates to operational performance. Firms that had adopted digital documentation reported notably shorter cycle times, fewer errors, and a drop in customer complaints. After integrated documentation platforms were put in place, the rate at which submissions went through correctly on the first attempt rose appreciably. How prepared the organisation was and how well its employees had been trained turned out to be important moderating factors, and those forwarders that used agile change-management approaches saw efficiency benefits materialise more quickly — a point with direct relevance to the Middle Eastern context.

- *Research Gap*

While plenty has been written about agile methodology on one hand and logistics digitalisation on the other, a number of gaps persist. To begin with, agile scholarship remains heavily tilted toward software and technology settings; research that looks specifically at agile within the export-import documentation work of freight forwarders is still sparse, more so for the Middle East. Additionally, few studies have examined the combined influence of iterative planning, cross-functional collaboration, and continuous improvement on documentation efficiency, as opposed to treating each

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variable separately. Most existing work also centres on large multinational forwarding companies, which means mid-sized players like exhibition-logistics specialists have received comparatively little attention. Furthermore, the kind of conceptual model that ties agile practices to a multi-dimensional view of operational efficiency — one that covers cycle time, first-time-right rate, responsiveness, and employee engagement — has yet to be put to the test in a UAE setting. Fifth, the interaction between agile practices and the UAE's ongoing paperless-trade and digital-customs transformation is largely unexplored. The present study fills these voids by putting the integrated framework to an empirical test inside the documentation function at A Case Company, Dubai.

III. RESEARCH METHODOLOGY

➢ *Introduction*

This section lays out the methodological scaffolding used to investigate how agile methodology practices and operational efficiency in export-import documentation are connected at A Case Company, Dubai. It covers the research design, where the data came from, how the sample was chosen, the analytical tools employed, and the hypotheses that were tested in pursuit of the study's objectives.

➢ *Research Design*

A descriptive, cross-sectional design was adopted for this research. The design captures the present state of agile uptake, probes how the constructs relate to one another, and tests linkages between the independent variables — Iterative Planning, Cross-Functional Collaboration, and Continuous Improvement — and the dependent variable, Operational Efficiency.

➢ *Type of Data*

The study drew on both primary and secondary data. On the primary side, perceptions and ratings were gathered via a structured Likert-scale questionnaire completed by documentation staff and employees in allied functions. Secondary sources included industry reports, peer-reviewed academic literature, UAE customs publications, and disclosures from the company itself.

➢ *Sources of Data*

First-hand data were obtained from documentation executives, operations executives, customer service personnel, supervisors, and managers employed at A Case Company, Dubai. On the secondary side, materials were drawn from the Mordor Intelligence UAE Freight and Logistics Market Report, publications by IELA and the Dubai Chamber, disclosures from Dubai Customs and Dubai Trade, internal company records, and relevant academic literature.

➢ *Sampling Technique*

Purposive and convenience sampling, both non-probability approaches, were used to select participants. Selection criteria centred on the respondent's hands-on familiarity with shipping documentation at the firm, supplemented by internal referrals and departmental contact lists.

➢ *Period of the Study*

Fieldwork for the primary data took place between January and March 2026. Secondary sources and peer benchmarking data were refreshed up to March 2026.

➢ *Data Collection Method*

The structured questionnaire, built around five-point Likert-scale statements, was distributed through face-to-face visits, email, and a Google Form. Before the full roll-out, a small pilot group tested the instrument, after which wording adjustments were made. In all, 18 fully completed and usable questionnaires came back, each covering demographic details in Section A and 20 Likert-scale items on the four constructs in Section B.

➢ *Tools and Techniques for Data Analysis*

- Frequency distribution and cross-tabulation for demographic profiling.
- Descriptive statistics (percentages) for individual statement analysis.
- Cronbach's Alpha for internal-consistency reliability of each construct scale.
- Pearson correlation to examine relationships between independent variables and operational efficiency.
- Multiple regression analysis to identify predictors of operational efficiency.
- Chi-square test of independence to assess association between Department and recoded Operational Efficiency.
- One-Way ANOVA to test mean differences in Operational Efficiency across Departments.
- IBM SPSS Statistics Version 26 and Microsoft Excel were used for statistical processing.

➢ *Hypotheses Used*

- H1: There is a significant correlation between Iterative Planning, Cross-Functional Collaboration, Continuous Improvement and Operational Efficiency.
- H2: Iterative Planning, Cross-Functional Collaboration and Continuous Improvement collectively have a significant positive effect on Operational Efficiency.
- H3: There is a significant association between Department and the recoded level of Operational Efficiency.

➢ *Pearson Correlation Test: Relationship between Iterative Planning and Operational Efficiency*

- *Hypothesis*

✓ H0 (Null): There is no significant correlation between Iterative Planning and Operational Efficiency.
✓ H1 (Alternative): There is a significant correlation between Iterative Planning and Operational Efficiency.

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Table 1 Correlation between Iterative Planning and Operational Efficiency

Measure	Iterative Planning (IP)	Operational Efficiency (OE)
IP – Pearson Correlation	1	.706
Sig. (2-tailed)	—	.001
N	18	18
OE – Pearson Correlation	.706	1
Sig. (2-tailed)	.001	—
N	18	18

***. Correlation is Significant at the 0.01 Level (2-tailed). Source: Primary Data*

- *Interpretations*

Looking at Table 1, the Pearson correlation between Iterative Planning and Operational Efficiency comes out at r = .706, with a significance level of p = .001. Because this p-value falls below the 0.05 threshold, the null hypothesis can be set aside at the 5% level and the alternative hypothesis holds. What this points to is a strong, positive linear association: when iterative planning practices gain ground within the documentation function — through shorter planning cycles, frequent prioritisation meetings, prompt flagging of urgent files, and visible work-in-progress boards — operational efficiency tends to climb in step. Notably, Continuous Improvement shows an even tighter correlation with Operational Efficiency (r = .727, p = .001), and Cross-Functional Collaboration records a moderate but still positive correlation (r = .580, p = .012). Taken together, all three agile practices display statistically significant positive ties with documentation efficiency.

➢ *Multiple Regression Analysis: Predictors of Operational Efficiency*

- *Hypothesis*

✓ H0 (Null): Iterative Planning, Cross-Functional Collaboration and Continuous Improvement collectively have no significant effect on Operational Efficiency.
✓ H1 (Alternative): The above three factors collectively have a significant positive effect on Operational Efficiency.

Table 2 Multiple Regression: Predictors of Operational Efficiency

Model	R	R Square	Adjusted R^2	Std. Error
1	.821	.674	.605	.60587

Predictors: (Constant), Iterative Planning, Cross-Functional Collaboration, Continuous Improvement. Dependent Variable: Operational Efficiency. F(3, 14) = 9.663, p = .001.

Predictor	B	Std. Error	Beta	t	Sig.
(Constant)	.287	.681	—	.422	.679
Iterative Planning	.427	.171	.449	2.502	.025
Cross-Functional Collaboration	.053	.242	.054	.219	.829
Continuous Improvement	.449	.264	.449	1.698	.112

Source: Primary Data. All VIF Values Remain Below 5 (max = 3.011), Confirming No Serious Multicollinearity.

- *Interpretations*

Turning to the regression output in Table 2, the model as a whole yields R = .821, R^2 = .674, and Adjusted R^2 = .605, with F(3, 14) = 9.663 and p = .001. With the p-value sitting comfortably below 0.05, the null hypothesis is rejected in favour of the alternative: together, the three agile practices account for roughly 67.4% of the variation in Operational Efficiency. When the predictors are examined individually, Iterative Planning reaches statistical significance (p = .025, Beta = .449) and comes through as the most powerful driver. Continuous Improvement carries a positive coefficient of the same magnitude (Beta = .449) yet does not quite clear the 5% hurdle on its own (p = .112), while Cross-Functional Collaboration falls well short of individual significance (p = .829). Practically, this suggests that strengthening iterative planning routines — fixed-length cycles, regular prioritisation meetings and visible WIP boards — offers A Case Companythe clearest single lever for raising operational efficiency in export-import documentation.

➢ *Chi-Square Test of Independence: Department vs Operational Efficiency*

- *Hypothesis*

✓ H0 (Null): There is no association between Department and the recoded level of Operational Efficiency.
✓ H1 (Alternative): There is a significant association between Department and the recoded level of Operational Efficiency.

Table 3 Crosstabulation: Department × Operational Efficiency

Department	Low	Medium	High	Total
Export & Import Documentation	2	3	0	5
Operations	0	0	5	5
Customer Service	1	1	2	4

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Customs & Compliance	0	1	1	2
Finance / Administration	0	1	1	2
Total	3	6	9	18

Source: Primary Data

Table 4 Chi-Square Tests

Test	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.450	8	.177
Likelihood Ratio	15.817	8	.045
Linear-by-Linear Association	1.393	1	.238
N of Valid Cases	18	—	—

Source: Primary Data. 15 Cells (100.0%) have Expected count less than 5; Minimum Expected Count = 0.33.

- *Interpretations*

Table 4 shows a Pearson Chi-Square value of 11.450 on 8 degrees of freedom, yielding a p-value of .177. As this p-value exceeds 0.05, the null hypothesis cannot be rejected at the 5% level, meaning the alternative hypothesis is not supported. In strict statistical terms, then, no significant association emerges between department affiliation and the recoded Operational Efficiency category. However, descriptive inspection of the crosstabulation reveals a meaningful pattern: the Operations department concentrates entirely in the "High" efficiency category, while Export & Import Documentation lies entirely in the "Low" and "Medium" categories. The failure of the formal test to reach significance is partly down to the small sample of 18 and the large share of cells with expected counts below five; even so, the pattern visible in the data hints at real departmental differences that management should not ignore.

IV. FINDINGS

- Most respondents were male (66.7%), with the 25–34 age group making up the largest share (27.8%); nearly half held a bachelor's degree (44.4%), and the two biggest job clusters were Documentation Executives/Officers and Customer Service Executives, each representing 33.3% of the sample.
- Export & Import Documentation and Operations each accounted for 27.8% of the departmental breakdown, and a full 83% of participants said they deal with documentation either Often or Always in their day-to-day tasks — strong evidence that the sample reflects genuine hands-on experience.
- Views on Iterative Planning were largely favourable: across items IP1 to IP5, Agree and Strongly Agree responses predominated, with the highest scores going to visible WIP boards (IP4, 50% Agree plus 22.2% Strongly Agree) and early identification of urgent files (IP3, 55.6% Agree).
- Items CF1 through CF5 on Cross-Functional Collaboration similarly clustered in the Agree and Strongly Agree territory, with CF4 — covering clarity of roles and responsibilities — drawing the densest concentration at 50% Agree, which underscores the functional interdependence that surrounds each shipment file.
- Reliability testing produced strong Cronbach's Alpha scores — .968 for Iterative Planning, .942 for Cross-Functional Collaboration, .912 for Continuous Improvement, .933 for Operational Efficiency, and .939 overall — leaving little doubt about the questionnaire's dependability as a measurement tool.
- Pearson correlations confirm strong and significant positive relationships between all three agile practices and Operational Efficiency: Iterative Planning ($r = .706$, $p = .001$), Continuous Improvement ($r = .727$, $p = .001$), and Cross-Functional Collaboration ($r = .580$, $p = .012$).
- The multiple regression model is statistically significant overall, $F(3, 14) = 9.663$, $p = .001$, with $R^2 = .674$ — the three agile practices jointly explain approximately 67.4% of the variation in Operational Efficiency — and Iterative Planning is the only individually significant predictor ($\beta = .449$, $p = .025$), while Cross-Functional Collaboration and Continuous Improvement do not reach 5% significance individually. The Chi-Square test between Department and recoded Operational Efficiency is non-significant ($\chi^2 = 11.450$, $p = .177$), but the One-Way ANOVA still reveals the largest practical gap between Operations (mean = 4.60) and Export & Import Documentation (mean = 3.00).

V. SUGGESTIONS

- A Case Companywould benefit from embedding iterative planning more firmly by running short, fixed-length planning cycles for each shipment file, making sure urgent and complex cases are flagged right at the outset of every cycle, and putting up visible work-in-progress boards — whether physical whiteboards or digital dashboards — in the documentation area.
- Collaboration across the Documentation, Operations, Customer Service, and Customs & Compliance teams needs to be tightened through daily or weekly stand-up meetings backed by up-to-date RACI matrices, so every team member is clear on who is responsible for each documentation step and handover gaps shrink.
- After every major shipment — or at set intervals — a formal retrospective meeting should take place, and it is important that management follows through visibly on the ideas that come out of it; keeping a short list of open improvement items and closing them out publicly sends a strong message that retrospective input genuinely leads to change.
- A straightforward defect-logging mechanism for recurring documentation mistakes would be valuable,

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with monthly root-cause reviews channelling findings into a company-wide lessons-learned repository; this way, the organisation steadily builds its knowledge base instead of repeating the same slip-ups from one shipment cycle to the next.

- Extra training, a rebalancing of workloads, and additional staffing support should be aimed squarely at the Export & Import Documentation department, where perceived efficiency lags behind other units, and the company should put particular investment into iterative-planning skills given that this practice emerged as the most powerful individual predictor of efficiency.

VI. CONCLUSION

This paper set out to understand what part agile methodology practices — Iterative Planning, Cross-Functional Collaboration, and Continuous Improvement — play in determining Operational Efficiency in the export-import documentation arm of A Case Company, Dubai, drawing on primary data from a purposively chosen group of eighteen respondents and analysing it with descriptive statistics, Cronbach's Alpha, Chi-Square tests, Pearson correlation, One-Way ANOVA, and Multiple Linear Regression. The reliability checks confirmed strong internal consistency across every construct. Pearson correlations established that all three agile practices share significant positive relationships with Operational Efficiency, and the regression model verified that, taken together, these practices explain 67.4 per cent of the variance in Operational Efficiency, with Iterative Planning standing out as the most influential individual predictor. Although neither the Chi-Square test nor the One-Way ANOVA by department reached statistical significance — unsurprising given the modest sample — the descriptive data nonetheless reveal visible differences between departments, particularly between Operations and Export & Import Documentation.

On a broader level, the findings carry an encouraging message: applying agile practices methodically in the traditionally process-laden world of shipping and customs documentation can meaningfully speed up responsiveness, cut rework, and raise throughput. For A Case Company, the way ahead involves deepening iterative planning habits, reinforcing collaboration across departments through regular stand-ups and sharper role definitions, and embedding retrospectives and lessons-learned records into everyday practice — a blueprint that other shipping, logistics, and freight-forwarding firms operating along Dubai's tightly regulated, time-sensitive trade corridors can also draw on.

VII. MANAGERIAL IMPLICATIONS

For managers and senior staff at A Case Company, as well as their counterparts at other UAE freight forwarders, this study converts what has been largely a theoretical proposition — that agile methods can add value beyond software — into a concrete set of decisions about where to direct limited change-management resources. The evidence singling out Iterative Planning as the strongest predictor of Operational Efficiency sends a clear signal: begin with planning discipline, not culture-change workshops, and regard visible work-in-progress tools alongside short, fixed-length work cycles as essential investments rather than optional extras.

- Give priority to iterative planning routines and work-in-progress visibility over other agile investments, as these have the firmest statistical backing for driving efficiency within the documentation function.
- Shift effort in the Export & Import Documentation department away from ad-hoc, reactive firefighting and toward structured weekly planning cycles with pre-set rules for prioritising files.
- Develop a genuinely shared cross-functional capability spanning Documentation, Operations, Customer Service, and Customs & Compliance by introducing structured stand-ups, RACI matrices, and a single shipment-tracking board visible to all.
- Going forward, maintain a compact, consistent set of KPIs — documentation cycle time, first-time-right rate, amendment-response time, retrospective-action closure rate, and the departmental mean for Operational Efficiency — to make the impact of agile interventions trackable from one sprint to the next.

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