OIOS
Office of Internal Oversight Services

INTERNAL AUDIT DIVISION

REPORT 2020/004

Audit of the implementation of the supply chain management strategy for peace operations

While progress was recorded in the implementation of supply chain management, the status of the current strategy needed to be clarified and operationalization of some initiatives reviewed to identify and address gaps and apply lessons learned

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Audit of the supply chain management strategy
for peace operations

EXECUTIVE SUMMARY

The Office of Internal Oversight Services (OIOS) conducted an audit of the implementation of the supply chain management (SCM) strategy for peace operations. The objective of the audit was to assess the effectiveness of the implementation of the strategy by the Logistics Division within the Office of SCM (OSCM) in the Department of Operational Support (DOS). SCM consists of planning and managing all activities related to sourcing and procurement of goods and services, and other logistics activities such as delivery, storage, and disposal of goods. The strategy was being implemented in peacekeeping and special political missions through a series of individual projects to address specific weaknesses or to improve the supply chain. The audit, which covered the period from 1 April 2016 to 31 March 2019, included the overall governance and implementation of the projects and sought to answer the following questions:

- How effective is the overall governance and implementation of SCM?
- How accurate and reliable are periodic reports on the SCM strategy, including assessment of benefits?

The audit determined that the Programme Board, established to provide overall governance for supply chain and related projects, was effective. The Board approved, prioritized and monitored all projects, several of which had been completed, and some of the resulting new processes had been mainstreamed in field missions. Inadequate implementation of the performance management framework (due to the delay in the roll-out of the Umoja Business Intelligence functionality) limited OSCM's ability to fully measure the extent of mainstreaming SCM and the effectiveness and efficiency of the supply chain function. This was being addressed through the development of Business Intelligence reports, Umoja Extension 2 and key performance indicators. However, there was a need to clarify the status of the current SCM implementation strategy and review the operationalization of some initiatives to identify and address gaps and apply lessons learned.

OIOS made four recommendations. To address issues identified in the audit, DOS needed to:

- Clarify the status of the current SCM implementation strategy to reflect adoption of the business transformation approach and expansion of SCM to the entire Secretariat;
- Identify gaps in the implementation of centralized warehousing in field missions and apply lessons learned for continuous improvement;
- Provide guidance to field missions on the organization of mission support structures; and
- Establish freight forwarding system contracts to strategically manage the delivery of goods.

DOS accepted the recommendations and has initiated action to implement them.

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Audit of the implementation of the supply chain management strategy for peace operations

I.   BACKGROUND

1.   The Office of Internal Oversight Services (OIOS) conducted an audit of the implementation of the supply chain management (SCM) strategy for peace operations.

2.   SCM comprises integrated end-to-end processes for planning and managing all activities related to sourcing and procurement of goods and services, and other logistics activities such as delivery, storage, and disposal of goods. Prior to the implementation of the management reforms on 1 January 2019, the Logistics Support Division (LSD) in the former Department of Field Support (DFS) was leading the implementation of SCM for peace operations. Following the management reforms, the Logistics Division (LD[1]) within the newly created Office of SCM (OSCM) in the Department of Operational Support (DOS) became responsible for managing the integrated end-to-end supply chain of the entire Secretariat.

3.   The United Nations supply chain supports the delivery of goods and services to approximately 135,000 military, police and civilian personnel in 13 peacekeeping missions. Global requirements for goods and services for fiscal year 2018/19 comprised over 10,000 items for 13 missions and the United Nations Global Service Centre (UNGSC) costing an estimated $2.30 billion. Requirements for the fiscal year 2019/20 are projected at 9,066 items for 14 missions and UNGSC costing $2.17 billion. Approximately 60 per cent of personnel are in land-locked or hard to reach areas necessitating long supply lines over difficult terrain and in high security risk environments.

4.   The SCM Vision and Strategy developed in 2015 called for a well-managed and agile supply chain to overcome these and other challenges, such as:

   (i)   Supply chain activities that were largely undertaken in a decentralized, mission-based and reactive mode;
   (ii)   Limited visibility of locations and levels of goods;
   (iii)   Vendors tasked with responsibility for delivery resulting in multiple shipments along the same supply routes to the same locations; and
   (iv)   Acquisition and sourcing plans that were insufficient and ad hoc and did not consider the total costs (cost of the commodity and freight).

5.   The SCM Vision and Strategy outlined four building blocks for supply chain: a) integrated end-to-end processes; b) flexible solutions for different situations; c) organizational enablers; and d) performance management framework. The SCM Blueprint, developed in support of the SCM Vision and Strategy to provide operational detail, draws upon the Supply Chain Operations Model (SCOR), i.e. plan, source, deliver, return and enable. SCM is being implemented through a series of individual projects to address specific weaknesses or to provide improvements in the supply chain under the four identified building blocks as detailed in Table 1. To date, 13 projects (including four pilot projects) have been initiated.

6.   A Programme Board (PB) was established by LD in July 2017 to provide overall governance for all supply chain and related projects, including their approval and prioritization. Until 1 January 2019, the Board was chaired by the Director, LD and included all LD Service Chiefs, Chief Supply Chain from UNGSC and other project business owners as defined by the Board. In addition to the PB, each project had

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[1] From 1 January 2019, the functions of LSD were transferred to LD. LD is used throughout this report, even for activities undertaken and decisions made by LSD prior to the reform.

a project board, with an identified business owner, to provide direction and management. A Programme Management Office (PMO) was also established to manage the SCM initiative and facilitate meetings of the PB. As of 1 January 2019, the PMO, serving as the secretariat to the PB, comprised a Chief at the P5 level and one Administrative Officer at the P3 level.

7.   Since the implementation of management reforms, PB is chaired by the Assistant Secretary-General (ASG), OSCM and includes representation from the Procurement and Uniformed Capabilities Support Divisions in OSCM.

Table 1: SCM building blocks and associated projects

Building Block	Projects (SCOR Model)				
	Plan	**Source**	**Deliver**	**Return**	**Enable**
End-to-end SCM process	Acquisition Planning (pilot)	Category Management	• Inbound Delivery Coordination • Centralized Warehousing (pilot) • Global Freight Forwarding • Incoterms (pilot) • Contract Performance Management	Centralized Warehousing	
Different solutions for different situations	East Africa Corridor (pilot)				
Cross cutting infrastructure, technology and resources for SCM implementation	• Supply Chain Operational Guidance (SCOG) • Learning Framework/School house • SCM Blueprint				
Management of performance of the end-to-end supply chain	Performance Management				

Source: SCM Blueprint and project management documents

8.   Comments provided by DOS are incorporated in italics.

II.   AUDIT OBJECTIVE, SCOPE AND METHODOLOGY

9.   The objective of the audit was to assess the effectiveness of the implementation of the SCM strategy.

10.   This audit was included in the 2019 risk-based work plan of OIOS due to the importance of SCM and operational risks related to the implementation of the SCM strategy.

11.   OIOS conducted this audit from April to November 2019. The audit covered the period from 1 April 2016 to 31 March 2019. Based on an activity-level risk assessment, the audit covered higher and medium risk areas in the overall governance and implementation of projects including monitoring and reporting, and sought to answer the following questions:

(i)   How effective is the overall governance and implementation of SCM?

(ii)   How accurate and reliable are periodic reports on the SCM strategy, including assessment of benefits?

12.   The audit methodology included: (a) interviews of key personnel in OSCM, UNGSC and nine selected field missions, (b) review of relevant documentation, and (c) review of the implementation of selected projects.

13.   OIOS selected 2 out of the 13 SCM projects for detailed review:

(i)   The global acquisition planning project, which was aimed at improving the accuracy of forecasting missions' requirements for goods and services; and

(ii)   The centralized warehousing project, which was aimed at ensuring sound, coordinated warehouse management and strong visibility of all inventory to meet missions' requirements more effectively.

14.   In addition, OIOS reviewed the restructuring of mission support structures intended to harmonize them across field missions, SCM capacity building activities and implementation status of the performance management framework.

15.   The audit was conducted in accordance with the International Standards for the Professional Practice of Internal Auditing.

III.   AUDIT RESULTS

A.   Governance and implementation of SCM

The status of the current SCM implementation strategy needed to be clarified

16.   The roadmap for the implementation of the SCM strategy envisaged its implementation in three to five years ending in 2019. Blueprints were to be prepared annually to outline each year's required activities. The 2017 blueprint specified the timeline for the implementation of the strategy, and the organizational and support structures and process flows required for the future state of SCM. The key milestones for the first three years comprised: (a) roll out of strategic initiatives such as new organizational structures, phased implementation of new processes and communication mechanisms; (b) execution of the individual projects detailed in Table 1; and (c) completion of enablers such as reprofiling of human resources, decommissioning of Galileo and implementation of Umoja Extension 2. A dashboard was to be developed to track and monitor the implementation of the strategy.

17.   As of January 2019, the supply chain organizational structure at Headquarters and UNGSC had been revised as well as the mission support structures in the nine missions reviewed. Responsibility for procurement had been brought under the authority of the ASG, OSCM as part of the management reform. Several of the projects highlighted in the blueprint had been completed under the oversight of PB and PMO and some new processes had been mainstreamed in field missions such as centralized warehousing. Some enablers were ongoing such as the implementation of Umoja Extension 2. While individual initiatives and projects were being monitored, the dashboard was not developed to monitor implementation of the overall strategy.

18.   In his December 2018 report on SCM, the DFS Under-Secretary-General indicated that DFS management had decided not to publish the 2018 version of the blueprint due to the impending management reform, which would extend SCM to the entire Secretariat. There was therefore no longer an updated/defined list of activities and projects that were needed to implement SCM, with identified timelines. The PB Chair explained that projects were being identified organically to address specific needs as they arose. In addition, the commitment to implement SCM by a certain date had been replaced by an acknowledgement that SCM was a business transformation and not a project with a specified end date. Nevertheless, SCM was still being managed by a PB and a PMO, which are project structures. According to PRINCE2[2], a clear end to a project is always more successful than a slow drift into use as it provides an opportunity to:

   (i)   Review whether the original objectives had been met, transfer ownership of the products of the project to operational management and disband the project team; or

   (ii)   Identify unachieved goals and objectives and convert the products of the project into inputs for a subsequent project or programme.

19.   The status of the current SCM implementation strategy and the future direction for implementing SCM in the entire Secretariat therefore needed to be clarified.

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(1)   DOS should clarify the status of the current strategy to implement supply chain management (SCM) in light of the adoption of the business transformation approach (rather than project approach) and the expansion of SCM to the entire Secretariat.

DOS accepted recommendation 1 and stated that it would address the recommendation in the context of the upcoming revision of the Supply Chain Blueprint including reflection on the expansion of SCM to the entire Secretariat in line with the management reform. Recommendation 1 remains open pending receipt of the revised Supply Chain Blueprint with clarification of the current SCM implementation strategy.

Ongoing work on material master information will further enhance implementation of global demand and acquisition planning

20.   SCM was meant to address one of the key weaknesses in the supply chain which was inadequate acquisition planning. Due to inadequate acquisition planning, among other reasons, peace operations experience delays in obtaining their requirements and incur significant write-offs of slow-moving and obsolete assets and inventory. These amounted to approximately $185 million and $46 million in acquisition and residual value respectively for the year ended 30 June 2019 as a result of the Physical Inventory Reconciliation and Optimization (PIRO) project that had a goal to resolve asset data issues.

21.   To facilitate global demand planning and consolidate planned acquisitions for 2016/17 fiscal year, PB embarked on the Global Acquisition Planning project implemented by a Global Acquisition Planning Team in UNGSC in March 2015. The project aimed at creating a web-based platform, the DAP Tool, as an interim measure until the Umoja Extension 2 demand planning module is implemented in 2020. The Tool was intended to help peace operations to align their demand planning process with preparation of the budget proposals for the fiscal year 2018/19 for field missions and the biennium 2018-2019 for special political missions. However, due to delayed implementation of the Tool and the learning curve involved, demand and acquisition plans were not consolidated in time for the budget process. Nevertheless, the Tool was used

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[2] PRojects IN Controlled Environments – a structured project management method.

to consolidate and categorize missions' global demand for goods and services and produce an information package in August 2018. The package included an analysis that matched the top 10 requirements of missions with existing systems contracts and determined whether the contracts were sufficient to meet the demand, the status of any ongoing procurement actions or whether the category manager and the Procurement Division needed to initiate a new procurement action or contract extension for the requirements.

22. DFS conducted a workshop on demand acquisition planning and use of the DAP Tool for the field missions' SCM community in October 2018, and UNGSC shared with missions a user guide for the DAP Tool in December 2018. The workshop reviewed the lessons learned from the 2018/19 demand and acquisition planning process, which helped facilitate the timely implementation of the global demand planning process for 2019/20 budget period.

23. Responding to OIOS inquiry, the heads of the supply chain components of nine field missions generally noted full implementation of the DAP Tool in their missions. Three of them identified positive impact of the demand planning process, stating that it allowed them to understand demand in a consolidated manner, identify sourcing options earlier, and reduce unplanned buying and overstocking of inventory. However, several field missions stated that they experienced difficulty using the DAP Tool either because a commodity/service did not have a PID (a unique product identification linked to a material master data) or it was not associated with a systems contract. The results of a DFS/UNGSC survey conducted prior to the October 2018 workshop also indicated several comments with regards to shortcomings in the material master data including: i) commodities/services required were not available within the material master data, ii) contract catalogues were not available; iii) PIDs were not available; and iv) the inability to link PIDs to system contracts.

24. As part of the prerequisite for Umoja Extension 2, a material master transformation (MMT) project was underway led by the Umoja Coordination Service in DOS to enhance the Umoja material master data to meet supply chain requirements, including use of the DAP Tool. The Service stated that the earlier design completion date for the MMT project of June 2019, had been revised to the fourth quarter of 2019 due to its complexity and added that once the technical solution was in place it would take two to three years to implement the project, which required a governance and accountability framework and integration with the Procurement Division for contract updates. Due to the action being taken to address this issue, OIOS did not make the recommendation at this time.

DOS needed to review the implementation of centralized warehousing in field missions

25. The objectives of the centralized warehousing project were to develop the Centralized Warehousing Operations Manual and to ensure its implementation by field missions were aligned to global, regional and local warehousing processes. The project, launched in April 2015, consisted of two phases and aimed to achieve the following outcomes: (i) improved availability, planning and management of inventory; (ii) lower stock levels, faster inventory turnover rates and reduced financial resources allocated to the maintenance of excess inventory; (iii) better monitoring, reporting and supporting functions; and (iv) realization of savings due to streamlined and optimized operational setup. OIOS observed the following:

(a) Implementation of centralized warehousing was not adequate

26. In January 2017, LD disseminated the Manual to field missions for implementation by June 2018. The Manual addressed amongst other warehousing concepts: (i) setting up and managing central warehouses in field missions; (ii) managing stock level, control and replenishment; (iii) use of information systems and technology; and (iv) better planning and performance management.

27.   LD tasked UNGSC to monitor the implementation of the centralized warehousing project in the field missions. In February 2018, UNGSC, as part of Phase II of the project, administered a survey to 28 missions to assess overall implementation status and identify potential gaps. The survey showed that most missions had achieved good progress in implementing the Manual, with 16 missions achieving a target implementation rate of over 80 per cent. Although the second phase of implementation entailed identification of gaps and provision of support to assist missions in the implementation of centralized warehousing, evidence of delivering such support was not provided.

28.   OIOS inquired from nine field missions on the status of implementation of centralized warehousing in their missions. Most missions commended the close interactions during the implementation stage at various levels, through integrated business planning and ad-hoc meetings; however, the following challenges were identified:

(i)   Although relevant guidance was received, some guidance was theoretical rather than practical and did not assist with operational implementation of SCM. Only one mission was visited by LD team in September 2017 and May 2018 during the implementation of centralized warehousing and demand planning. The same mission also received a team from DOS in March 2019 on the PIRO project. Other missions did not have this level of support;

(ii)   Some missions lacked proper infrastructure to successfully implement centralized warehousing, and stored goods in sea containers, creating difficulty for stock control and safeguarding of assets with limited resources to construct hard wall warehouses. Several missions indicated that lack of bar code readers made physical verification lengthy (up to one year) and inaccurate;

(iii)   Titles and job descriptions of staff working in SCM pillar do not match the new structure and made recruitment of staff difficult; and

(iv)   Capacity building was challenging due to simultaneous implementation of various initiatives (Umoja, demand acquisition planning, centralized warehousing).

29.   Furthermore, OIOS report 2018/148 on the audit of warehouse operations in the United Nations Multidimensional Integrated Stabilization Mission in the Central African Republic noted that centralized warehousing guidelines were not properly implemented, and the Mission's warehouse structure and operations did not fully adhere to the requirements of the Centralized Warehousing Operations Manual. OIOS report 2018/123 on the audit of warehousing operations in the African Union-United Nations Hybrid Operations in Darfur also noted non-compliance with centralized warehousing guidelines such as insufficient security measures in warehouse operations, erroneous inventory data, incomplete physical stock verification and obsolete inventory. Although about 90 per cent of expendable items had been in the warehouse for over two years, the Mission continued to procure similar items.

(b)   Some functions were not adequately segregated

30.   Centralized warehousing operations include receipt, storage and distribution of goods and materials acquired for technical sections/units (General Supply, Fuel and Rations Units) in the service delivery pillar. It is important to separate roles of the service delivery pillar that is responsible for inventory management, including maintenance of stock levels, approval for release of goods and reordering, from the supply chain function that maintains custody of inventory. However, in response to OIOS inquiry, three of the five

missions stated that the organizational structures only partially reflected the required segregation of duties between the service delivery and supply chain functions, such as:

    (i)   Certain warehouse operations were managed by technical sections in the service delivery pillar;

    (ii)   Inventory management and reordering was conducted by warehousing operations instead of technical sections;

    (iii)   Warehouse operations staff prepared statements of works for new requisitions;

    (iv)   Warehouse operations staff authorized the release of goods; and

    (v)   Disposal unit was not located in warehousing operations as required by the Manual.

    (c)   <u>Efficiency gains could not be assessed</u>

31.   LD did not establish a mechanism to assess whether implementation of centralized warehousing resulted in efficiency gains, such as improved forecasting of inventory levels and turnover, better space utilization, and optimization of resources in managing warehousing operations due to lack of required data in Umoja. In response to OIOS inquiry on the extent to which efficiencies had been achieved, three of the missions stated that savings from the implementation could not be determined, one stated that no staff savings had been achieved, and another stated that staff capacity was inadequate to cope with workload. The other four field missions responded that the implementation of centralized warehousing had made some improvements, such as streamlining of acquisition process, eliminating duplicating processes, centralization and optimization of warehouse space and the provision of a consolidated view for senior management. However, no concrete examples were provided.

32.   LD closed Phase II of the project in June 2018; however, in July 2019, UNGSC circulated a checklist on "centralized warehousing implementation" to field missions, to assist with identification of gaps and documentation of the implementation status of different elements, including organizational structure, governance and key performance indicators. UNGSC also launched a Community of Practice on Centralized Warehousing to discuss with the missions the challenges they were facing in implementing the concept. At the time of the audit, UNGSC was reviewing the input received from the missions. However, the reliance on surveys and checklists provides LD limited visibility on the status and challenges of implementation of different initiatives and did not allow for the development of customized solutions to ensure that objectives of centralized warehousing and SCM at large are achieved.

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(2)   DOS should review the implementation of centralized warehousing in field missions to identify gaps and lessons learned for continuous improvement.

DOS accepted recommendation 2 and stated that UNGSC would review the status of implementation of centralized warehousing in field missions to identify gaps and record lessons learned for continuous improvement. The release and regular updating of the Central Warehousing Operations Manual for Field Missions would harmonize processes, while recognizing differences in mission structures. Ultimately, however, the decision and responsibility for implementation lies with individual entities. Recommendation 2 remains open pending receipt of the results of UNGSC review and an action plan for continuous improvement of the implementation of centralized warehousing in field missions.

<u>DOS needed to analyze the alignment of organizational structures and provide guidance to field missions</u>

33.   DFS promulgated guidance on the reorganization of mission support structures to ensure that field support service delivery is client oriented, integrated, and standardized, and to enhance management, segregation of duties and efficiency. Field missions were tasked to implement new support structures by June 2020. OIOS reviewed supply chain organizational structures of nine field missions in Umoja and

compared them against the relevant guidance to assess progress in implementing the structural changes. The supply chain pillar comprises five main units: performance, acquisition management, procurement, centralized warehousing and movement control, and 14 sub-units.

34.   The units and sub-units had been mostly implemented taking account of the missions' views on challenges and opportunities of the structure implementation. However, some gaps were identified in the implementation of the organizational structures. As of July 2019, the missions had not created business intelligence, stock control and inbound coordination sub-units to carry out their respective functions. Additionally, in one mission, the General Supply, Fuel and Rations Units reported to Supply Chain rather than the Service Delivery pillar; and in another mission, requisitioning, contract performance evaluation, receiving, warehouse operations, property disposal, joint movement control and cargo movement functions were not established. In two more missions, although implementation of the organizational structures was completed, it was not properly reflected in Umoja.

35.   Additionally, in response to OIOS inquiry, missions generally highlighted the need for Headquarters to provide clarifications on Umoja user mapping, user role assignment and segregation of duties, and indicated lack of skills to perform SCM functions. Roles and functions are at the core of many Umoja processes and if they are not properly aligned, staff members cannot perform the required functions and authorities cannot be subdelegated. Therefore, OSCM needed to provide missions with adequate support to reorganize mission support structures.

> **(3)   DOS should analyze the organization of mission support structures of field missions as reflected in Umoja and provide appropriate guidance on identified gaps.**
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> *DOS accepted recommendation 3 and stated that it would analyze the identified deviations and their reasons and render advice to the missions concerned to ensure that the principles promulgated by the DFS guidance including segregation of duties are observed. It should, however, be noted that the organizational structure of field missions is the responsibility of the entities themselves, and ultimately the General Assembly through the approval of budgets and structures.* Recommendation 3 remains open pending receipt of evidence that identified gaps in the organization of mission support structures have been analyzed and resolved.

Work on supply chain capacity building was ongoing

36.   According to the SCM Blueprint, a comprehensive and mutually supporting set of training options needed to be developed to help staff members transition to new job profiles. Therefore, in September 2018, PB approved the SCM learning framework project in collaboration with a vendor and assistance from the PMO. The objective of the project was to, among others, develop a web-based learning framework as a key tool to drive engagement, organizational change and synergies across the integrated end-to-end supply chain processes. In December 2018, the Schoolhouse project, under the SCM learning framework, was launched with 800 licenses allocated to field missions, UNGSC and Headquarters. The platform comprised off-the-shelf courses based on the SCOR model.

37.   LD also initiated the Supply Chain Operational Guidance (SCOG) development project with the aim of issuing the guidance by 30 June 2018. However, as of June 2019, LD had only issued parts of guidance related to the planning, sourcing and enabling processes on a provisional basis. This included supplementary guidance on the source process, which introduced a new set of PIDs for freight to allow better categorization of freight modalities. OSCM estimated that the full guidance will be completed by the end of 2020. Unavailability of SCOG may result in inconsistent translation and implementation of the end-to-end supply chain processes.

38.   OIOS inquiry on training and capacity development from field missions and OSCM noted the following:

   (i)   Schoolhouse modules were generic and not tailored to the United Nations environment. Specifically, there was no content on the Organization's end-to-end SCM processes, including demand planning, shopping carts, purchase orders, inbound deliveries, receipt and inspection of goods, and new SCM themes, such as total quality management; and

   (ii)   LD had not established local training experts and train-the-trainer programmes for more effective training delivery.

39.   OSCM commented that a train-the-trainer programme was not envisaged for the SCM learning. However, it was making progress towards promulgating SCOG and was also developing the Schoolhouse project, including obtaining user feedback, monitoring use of the tool, adding new content specific to the needs of United Nations staff and increasing the number of licenses. Therefore, OIOS did not make a recommendation on these issues at this time.

B.   Accuracy of assessing and reporting benefits of SCM

<u>Work on the supply chain Performance Management Framework was ongoing</u>

40.   To track the contribution of SCM towards strategic goals, PB initiated a Performance Management Framework project to measure, monitor and manage the supply chain to ensure effectiveness and efficiency. The project that was scheduled for implementation by June 2018 was not fully implemented due to delay in the roll-out of the Umoja Business Intelligence functionality that translates the underlying data into business terms. OIOS report 2019/026 on audit of the Galileo Decommissioning Project (GDP) in DOS noted that the GDP team was unable to build adequate Business Intelligence reports due to the inability to map complex data into familiar SCM queries. OIOS recommended that DOS design and deploy the required interfaces to be able to generate relevant queries. DOS accepted the recommendation, with an implementation date of 30 June 2019.   However, at the time of the issuance of this report this recommendation was not implemented.

41.   The Enabling and Outreach Service (EOS) of OSCM was developing 17 key performance indicators (KPIs) in line with SCOR. As of June 2019, EOS had implemented six KPIs (order fulfillment lead time, perfect order fulfillment, accumulated depreciation to historical cost ratio, accumulated depreciation while in stock, assets passed life expectancy and unutilized stocks) and reported them in quarterly reports to field missions, UNGSC and Headquarters. One KPI was used internally by OSCM to track policies, procedures, and manuals that needed to be revised and/or updated.   EOS planned to implement the remaining 10 SCOR KPIs together with additional 12 KPIs identified in the areas of procurement, logistics, aviation, demand planning and sourcing by the end of 2020. EOS indicated that discussions were ongoing within OSCM to determine priorities and sequence of implementation of the remaining KPIs.

42.   Lack of an adequate performance management framework did not allow OSCM to measure the extent of SCM mainstreaming and effectiveness and efficiency of the supply chain function. Since the work on the development of Business Intelligence reports, Umoja Extension 2 and KPIs was ongoing, OIOS did not make a recommendation at this time.

<u>The methodology to calculate benefits was reasonable but DOS needed to strategically manage the delivery of goods</u>

43.   In December 2018, DFS issued the SCM Final Report. The report was intended for the information of supply chain practitioners in the Secretariat and included the status and outcomes of the 13 SCM projects and other SCM related improvement programmes such as movement of United Nations-owned equipment (UNOE) and reimbursement to Member States for provided services under letters of assist (LOA), which had not been conducted as SCM projects under the oversight of the PB. The report highlighted financial gains of $7.8 million, as shown in Table 2. A total of $2.2 million from the East Africa Corridor and Delivery, Planning and Execution projects was directly related to SCM. OIOS reviewed the methodology used to calculate the reported benefits and found them to be reasonable as described below.

Table 2: SCM quantitative benefits (in US dollars)

Areas	Benefits
East Africa Corridor	214,000
Movement of UNOE	1,500,000
Delivery Planning and Execution	2,000,000
New Cost Methodology for Reimbursement under LOAs	4,130,859
Total	**7,844,859**

Source: DFS SCM Final Report

    a.   East Africa Corridor

44.   In December 2018, LD completed a pilot project under the East Africa Corridor aimed at testing the delivery of air conditioners under different Incoterms to achieve savings. The project closure report noted cost savings of $214,000 for the financial year 2017/18. The cost saving was due to shipment of 5,500 air-conditioning units using the Incoterm Free Carrier, with subsequent 'to door' shipment arranged by LD, instead of the Incoterm, Deliver at Place arranged by vendor. Using contract documents and price quotations, OIOS verified that the vendor quoted cost for Deliver at Place would have amounted to $4,546,600. The payment order for the cost of air conditioners and actual shipment arranged by LD using Incoterm Free Carrier amounted to $4,332,450, resulting in a saving of $214,000.

    b.   Movement of UNOE

45.   In 2017, DFS conducted a test run of two shipments of UNOE from Italy to a mission using Incoterm Free Carrier versus Deliver at Place. OIOS verified that the vendor-quoted costs using Deliver at Place amounted to $5.4 million versus the actual freight payment for Incoterm Free Carrier delivery of $3.9 million, resulting in a saving of $1.5 million.

    c.   Delivery, planning and execution

46.   LD conducted an exercise to demonstrate cost savings that could accrue to field missions if they switched to Incoterm Free Carrier instead of Deliver at Place for combat ration packs (CRPs). The potential benefit of $2 million represented the decrease in transportation costs if five selected field missions with high consumption of CRPs arranged transportation of CRPs through Incoterm Free Carrier in the 2018/19 financial year. LD used market surveys to estimate the delivery costs under the two Incoterms based on missions' demand acquisition plans for 2018/19. OIOS reviewed the underlying analysis indicating possible savings using the lowest and median market surveys of $2.6 and $1.9 million respectively. LD reported that $2 million of potential savings could be made using Incoterm Free Carrier.

47.   Subsequent to this exercise, in November 2018 the Director, LD requested field missions to consider Incoterm Free Carrier delivery terms for CRPs instead of Deliver at Place. The facsimile further noted that LD was planning to establish a freight forwarding systems contract for CRPs to enable field missions to utilize the Incoterm Free Carrier delivery terms. However, the savings were yet to be realized as the separate freight forwarding contract was not finalized. Also, LD did not monitor to determine whether any of the five field missions had switched to Incoterm Free Carrier for CRPs. OSCM stated that it had limited authority to enforce the Incoterm Free Carrier on field missions as the heads of entities had the delegation of authority. However, in June 2019, the Umoja Transportation Management module was implemented to provide logistics and procurement teams with enhanced visibility and control over global movement of goods and shipments. This includes a pilot on new PID selection process to assist in the selection of the most cost-effective mode of transportation and Incoterm. The module would provide OSCM with the ability to monitor implementation of delivery methods by field missions to ensure that benefits are being realized by the Organization and take action to avoid waste of resources.

   d.   LOAs with Member States for air transportation

48.   The United Nations reimburses Member States for LOAs at the lower of amounts quoted by them and the estimated cost of contracting air transportation services commercially. LD used the results of market surveys conducted by the Procurement Division to benchmark the costs. However, this was not providing adequate assurance that the Organization was paying a reasonable amount for troop and cargo movements conducted by Member States. This was due to: (a) high positioning/depositioning costs of aircraft that were typically included in proposals submitted by vendors that responded to market surveys but not applicable to Member States; and (b) lack of incentive for air operators to provide reliable and reasonable estimates that would be used solely for the purpose of benchmarking.

49.   A new method to determine LOA reimbursement benchmarked costs quoted by Member States against the average cost per hour incurred from 2012 to 2017 of a wide body aircraft obtained under a commercial long-term charter agreement. A benefit of $4.13 million was attributed to this new methodology. OIOS confirmed the costs under old and new methodologies and determined that the calculation of the saving was reasonable. However, OSCM needed to take action to ensure that potential savings identified based on Incoterms used for transportation and delivery of goods are realized.

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(4)   DOS should establish freight forwarding system contracts to strategically manage the delivery of goods, including use of appropriate Incoterms, to ensure cost-effectiveness and timely deliveries.

DOS accepted recommendation 4 and stated that strategic management of delivery and use of appropriate Incoterms have potential for improved cost-effectiveness of delivery. The Administration is piloting the methodology adopted by the United Nations Children's Fund in contracting freight forwarding services. In parallel, and on the basis of the lessons learned, market research and solicitation documents would be finalized to establish long-term agreements for global freight forwarding, capturing the requirements for all entities of the Secretariat. OSCM expects to initiate the solicitation of a freight forwarding contract by the end of the second quarter in 2020, following finalization of a freight forwarding category strategy and completion of necessary preparatory work. Recommendation 4 remains open pending receipt of the freight forwarding category strategy and freight forwarding system contracts.

IV. ACKNOWLEDGEMENT

50.   OIOS wishes to express its appreciation to the management and staff of DOS for the assistance and cooperation extended to the auditors during this assignment.

(*Signed*) Eleanor T. Burns
Director, Internal Audit Division
Office of Internal Oversight Services

STATUS OF AUDIT RECOMMENDATIONS

Audit of the implementation of the supply chain management strategy for peace operations

Rec. no.	Recommendation	Critical[3]/ Important[4]	C/O[5]	Actions needed to close recommendation	Implementation date[6]
1	DOS should clarify the status of the current strategy to implement supply chain management (SCM) in light of the adoption of the business transformation approach (rather than project approach) and the expansion of SCM to the entire Secretariat.	Important	O	Receipt of the revised Supply Chain Blueprint with clarification of the current SCM implementation strategy.	31 December 2020
2	DOS should review the implementation of centralized warehousing in field missions to identify gaps and lessons learned for continuous improvement.	Important	O	Receipt of the results of UNGSC review and an action plan for continuous improvement of the implementation of centralized warehousing in field missions.	31 December 2021
3	DOS should analyze the organization of mission support structures of field missions as reflected in Umoja and provide appropriate guidance on identified gaps.	Important	O	Receipt of evidence that identified gaps in the organization of mission support structures have been analyzed and resolved.	31 December 2020
4	DOS should establish freight forwarding system contracts to strategically manage the delivery of goods, including use of appropriate Incoterms, to ensure cost-effectiveness and timely deliveries.	Important	O	Receipt of the freight forwarding category strategy and freight forwarding system contracts.	31 March 2021

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[3] Critical recommendations address critical and/or pervasive deficiencies in governance, risk management or control processes, such that reasonable assurance cannot be provided with regard to the achievement of control and/or business objectives under review.

[4] Important recommendations address important (but not critical or pervasive) deficiencies in governance, risk management or control processes, such that reasonable assurance may be at risk regarding the achievement of control and/or business objectives under review.

[5] Please note the value C denotes closed recommendations whereas O refers to open recommendations.

[6] Date provided by DOS in response to recommendations.

APPENDIX I

Management Response

Management Response

Audit of the implementation of the supply chain management strategy for peace operations

Rec. no.	Recommendation	Critical[1]/ Important[2]	Accepted? (Yes/No)	Title of responsible individual	Implementation date	Client comments
1	OSCM should clarify the status of the current strategy to implement supply chain management (SCM) in light of the adoption of the business transformation approach (rather than project approach) and the expansion of SCM to the entire Secretariat.	Important	Yes	ASG, OSCM	Fourth quarter of 2020	The Department of Operational Support's (DOS') comments are reflected in the report.
2	OSCM should review the implementation of centralized warehousing in field missions to identify gaps and lessons learned for continuous improvement.	Important	Yes	Director, GSC	First quarter of 2021	The Global Service Centre's comments are reflected in the report. Furthermore, the release and regular updating of the Central Warehousing Operations Manual for Field Missions provides uniformity of process, recognizing differences in mission structures. Ultimately, however, the decision and responsibility for implementation lies with individual entities.
3	OSCM should analyze the organization of mission support structures of field missions as reflected in Umoja and provide appropriate guidance on identified gaps.	Important	Yes	ASG, OSCM	Fourth quarter of 2020	DOS' comments are reflected in the report. It should, however, be noted that the organizational structure of field missions – as in all entities – is not the responsibility of DOS, but the entities themselves and ultimately the General Assembly through the approval of budgets and structures.
4	OSCM should establish freight forwarding system contacts to strategically manage the delivery of goods, including use of	Important	Yes	ASG, OSCM	First quarter of 2021	DOS' comments are reflected in the report.

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[1] Critical recommendations address critical and/or pervasive deficiencies in governance, risk management or control processes, such that reasonable assurance cannot be provided with regard to the achievement of control and/or business objectives under review.
[2] Important recommendations address important (but not critical or pervasive) deficiencies in governance, risk management or control processes, such that reasonable assurance may be at risk regarding the achievement of control and/or business objectives under review.

Management Response

Audit of the implementation of the supply chain management strategy for peace operations

Rec. no.	Recommendation	Critical[1]/ Important[2]	Accepted? (Yes/No)	Title of responsible individual	Implementation date	Client comments
	appropriate Incoterms, to ensure cost-effectiveness and timely deliveries.					