Chapter Six
Just In Time Costing and Backflush Costing

تحديد الكلفة في ظل الوقت المحدد وتحديد الكلفة ارتجاعيا

(تحديد الكلفة في ظل التدفق العكسي)

Learning Objectives

1. Describe why companies are using just in time production system.
2. Define the just in time production system .
3. Explain the effect of JIT Systems on Product Costing .
4. Identify the features of a just-in-time production system.
5. Define the backflush costing .
6. Describe different ways backflush costing can simplify traditional inventory-costing systems.

The current business environment is witnessing tremendous developments, most notably the fierce competition between the economic units, the information revolution, the technological progress, the resulting high costs, the great openness in trade and investment, the fluctuation in the tastes of customers and their desire to search for products that enjoy low prices and high quality that Resulting in a short life cycle of products. In the face of all these developments, it was natural for economic

Approach	Number of trigger points	The site holds journal entries in the accounting cycle
First	3	Stage (A): Purchase of direct materials Stage (C): Completion of finished goods Stage (D): Sale of finished goods
Second	2	Stage (A): Purchase of direct materials Stage (D): Sale of finished goods
Third	2	Stage (C): Completion of finished goods Stage (D): Sale of finished goods

اذن هذه هي الدورة المحاسبية التي تبدأ من عملية الشراء ثم الانطلاق بالإنتاج , ثم الاتمام , ثم بيع الانتاج التام , أي بمعنى اخر هنالك أربعة نقاط للحدث والتي تسمى(Trigger points) نقاط الحدث . فكل مرحلة من المراحل أعلاه تكون بمثابة نقطة او اشارة والتي تتطلب تسجيل قيد محاسبي في اليومية . اذ تبدأ هذه المراحل بالتعاقب من المرحلة (A,B,C,ثم D) . والحقيقة ان هذا التعقب والتسجيل التتابعي غالبا ما يكون مكلف والمدخل البديل لهذا التعقب والتمثيل التتابعي هو ما يطلق عليه بتحديد الكلفة ارتجاعيا

ويعرف بانه طريقة لتحديد الكلفة تقوم على اساس حذف او الغاء تسجيل بعض او كل قيود اليومية المرتبطة بالدورة المحاسبية منذ شراء المواد المباشرة وصولا الى بيع الانتاج التام , وعندما يتم تأجيل قيود اليومية لمرحلة او اكثر في الدورة المحاسبية , فان القيود المحاسبية للمرحلة اللاحقة تستخدم التكاليف العادية او المعيارية لعمل اتجاه عكسي لتدفق التكاليف في الدورة المحاسبية التي لم يتم تسجيل قيود اليومية لها .

وتجدر الاشارة ان تحديد الكلفة ارتجاعيا غالبا ما يأتي مصاحبا لنظام الانتاج

في الوقت المحدد , اذ انه في ظل هذا النظام يكون المخزون بنسب ضئيلة جدا بكاد يقترب من الصفر , وطريقة تحديد الكلفة ارتجاعيا تسهل من عمل هذا النظام دون حدوث اي خسارة في المعلومات .

اما عن تحديد الكلفة ارتجاعيا فهنالك ثلاث مداخل لتحديدها وهي تختلف في عددها وحسب نقاط الحدث وكالاتي :

المدخل	عدد نقاط الحدث	موقع اجراء قيود اليومية في الدورة المحاسبية
الأول	3	المرحلة (A): شراء مواد مباشرة المرحلة (C): إكمال الانتاج التام المرحلة (D): بيع الإنتاج التام
الثاني	2	المرحلة (A) : شراء مواد مباشرة المرحلة (D) : بيع الإنتاج التام
الثالث	2	المرحلة (C) : إكمال الانتاج التام المرحلة (D) : بيع الإنتاج التام

To illustrate an application of backflush costing method, take the following data for the month of April for Silicon Valley Computer (SVC), which produces keyboards for personal computers.

1. There are no beginning inventories of direct materials and no beginning or ending work-in-process inventories.

2. SVC has only one direct manufacturing cost category (direct materials) and one indirect manufacturing cost category (conversion costs). All manufacturing labor costs are included in conversion costs.

3. From its bill of materials and an operations list (description of operations to be undergone), SVC determines that the standard direct material cost per keyboard unit is $19 and the standard conversion cost is $12.

4. SVC purchases $1,950,000 of direct materials. To focus on the basic concepts, we assume SVC has no direct materials variances. Actual conversion costs equal $1,260,000. SVC produces 100,000 good keyboard units and sells 99,000 units.

5. Any underallocated or overallocated conversion costs are written off to cost of goods sold at the end of April. We use three examples to illustrate backflush costing. They differ in the number and placement of trigger points.

Example 1: The three trigger points for journal entries are Purchase of direct materials and incurring of conversion costs (Stage A), Completion of good finished units of product (Stage C), and Sale of finished goods (Stage D).

Note that there is no journal entry for Production resulting in work in process (Stage B) because JIT production has minimal work in process.

The following **Journal Entries** and **General Ledger** Overview for Backflush Costing with **Three Trigger Points: Purchase of Direct Materials** and **Incurring of Conversion Costs , Completion of Good Finished Units of Product,** and **Sale of Finished Goods** .

Panel A: Journal Entries

Stage A: Record Purchase of Direct Materials and Incurring of Conversion Costs

1- Record Direct Materials Purchased

Entry (A1)

Materials and In-Process Inventory Control	1 950 000	
Accounts Payable Control		. 1 950 000

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2- Record Conversion Costs Incurred.

Entry (A2)

Conversion Costs Control	1 260 000	
Various accounts (such as Wages		
Payable Control)		1 260 000

لا يوجد مرحلة انتاج مث استقبل لا نا مم د يجها

Stage B: Record Production Resulting in Work in Process.

Entry (B1)   No Entry Recorded

Stage C: Record Cost of Good Finished Units Completed. تسجيل العداد النهائي و الكلى

Entry (C1)

Finished Goods Control (12+19*100000 unit)	3 100 000	
Materials and In-Process Inventory Control		1 900 000
Conversion Costs Allocated		1 200 000

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Stage D: Record Cost of Finished Goods Sold (and
Under- or Overallocated Conversion Costs).

1. Record Cost of Finished Goods Sold.

Entry (D1)   (۱۲+۱۹ + ۹۹،۰۰۰)

      Cost of Goods Sold   3 069 000

          Finished Goods Control   3 069 000

**2.Record Under allocated or Overallocated
Conversion Costs.**

Entry (D2)

      Conversion Costs allocated   1200000

      Cost of Goods Sold   60 000

          Conversion Costs Control 1 260 000

Panel B: General Ledger Overview

Materials and In-Process Inventory Control		Finished Goods Control	
(A1) 1,950,000	(C1) 1,900,000	(C1) 3,100,000	(D1) 3,069,000
Bal. 50,000		Bal. 31,000	
Conversion Costs Allocated		Cost of Goods Sold	
(D2) 1,200,000	(C1) 1,200,000	(D1) 3,069,000	
		(D2) 60,000	
Conversion Costs Control			
(A2) 1,260,000	(D2) 1,260,000	3,129,000	

The following **Journal Entries** and **General Ledger** Overview for Backflush Costing with **Two Trigger Points: Purchase of Direct Materials** and **Incurring of Conversion Costs** , and **Sale of Finished Goods.**

Panel A: Journal Entries

Stage A: Record Purchase of Direct Materials and Incurring of Conversion Costs

1. Record Direct Materials Purchased

Entry (A1)

Inventory Control	1 950 000	
Accounts Payable Control		1 950 000

2- Record Conversion Costs Incurred.

Entry (A2)

Conversion Costs Control	1 260 000	
Various accounts (such as Wages Payable Control)		1 260 000

Stage B: Record Production Resulting in Work in Process

Entry (B1) : No Entry Recorded

Stage C: Record Cost of Good Finished Units Completed.

Entry (C1) : No Entry Recorded

Stage D: Record Cost of Finished Goods Sold (and Under- or Overallocated Conversion Costs).

1. Record Cost of Finished Goods Sold.

Entry (D1):

Cost of Goods Sold	3 069 000	
Inventory Control		1 881 000
Conversion Costs Allocated		1 188 000

2. Record Under allocated or Overallocated Conversion Costs.

Entry (D2):

Conversion Costs allocated	1 188 000	
Cost of Goods Sold	72 000	
Conversion Costs Control		1 260 000

Panel B: General Ledger Overview

Inventory Control			
(A1) 1,950,000	(D1) 1,881,000		
Bal. 69,000			

Conversion Costs Allocated		Cost of Goods Sold	
(D2) 1,188,000	(D1) 1,188,000	(D1) 3,069,000	
		(D2) 72,000	

Conversion Costs Control			
(A2) 1,260,000	(D2) 1,260,000	3,141,000	

Example 3: The two trigger points are Completion of good finished units of product (Stage C) and Sale of finished goods (Stage D).

The following Journal Entries and **General Ledger** Overview for Backflush Costing with **Two Trigger Points: Completion of Good Finished Units of Product** and **Sale of Finished Goods.**

Panel A: Journal Entries

Stage A: Record Purchase of Direct Materials and Incurring of Conversion Costs

1. **Record Direct Materials Purchased**

Entry (A1) : No Entry Recorded

2. **Record Conversion Costs Incurred.**

Entry (A2):

Conversion Costs Control	**1 260 000**	
Various accounts (such as Wages		
Payable Control)		**1260000**

Stage B: Record Production Resulting in Work in Process.

Entry (B1) : No Entry Recorded

Stage C: Record Cost of Good Finished Units Completed.

Entry (C1):

Finished Goods Control ((12+19)*100000unit)	3 100 000	
Accounts payable control		1 900 000
Conversion Costs Allocated		1 200 000

Stage D: Record Cost of Finished Goods Sold (and Under- or Overallocated Conversion Costs).

1. Record Cost of Finished Goods Sold.

Entry (D1):

Cost of Goods Sold	3 069 000	
Finished Goods Control		3069000

2. Record Under allocated or Overallocated Conversion Costs.

Entry (D2):

Conversion Costs allocated	1200000	
Cost of Goods Sold	60000	
Conversion Costs Control		1 260 000