业务流程再造

概述

- 1990年，Hammer博士首先提出了业务流程再造(business process reengineering，BPR)的概念。
- 他认为：“业务流程再造就是从根本上考虑和彻底地设计企业的流程，使其在成本、质量、服务和速度等关键指标上取得显著的提高。”

面向流程的思想

- 面向流程的思想是BPR的根本基础，其表现形式是在再造过程中以流程为核心，采取面向流程的管理方式。
- 面向流程的思想是BPR管理思想最根本的基础，体现出了业务流程必须快捷地满足客户要求的本质特征，真正地表达了BPR思想的精髓，也是对传统的面向职能管理方式的异化。
- 一般情况下，企业的管理方式可以这样描述：客户需求可以使用产品或服务来表示，产品或服务的完成需要企业的生产或服务流程，企业的生产或服务流程需要企业中的各种职能部门来保证。

系统集成

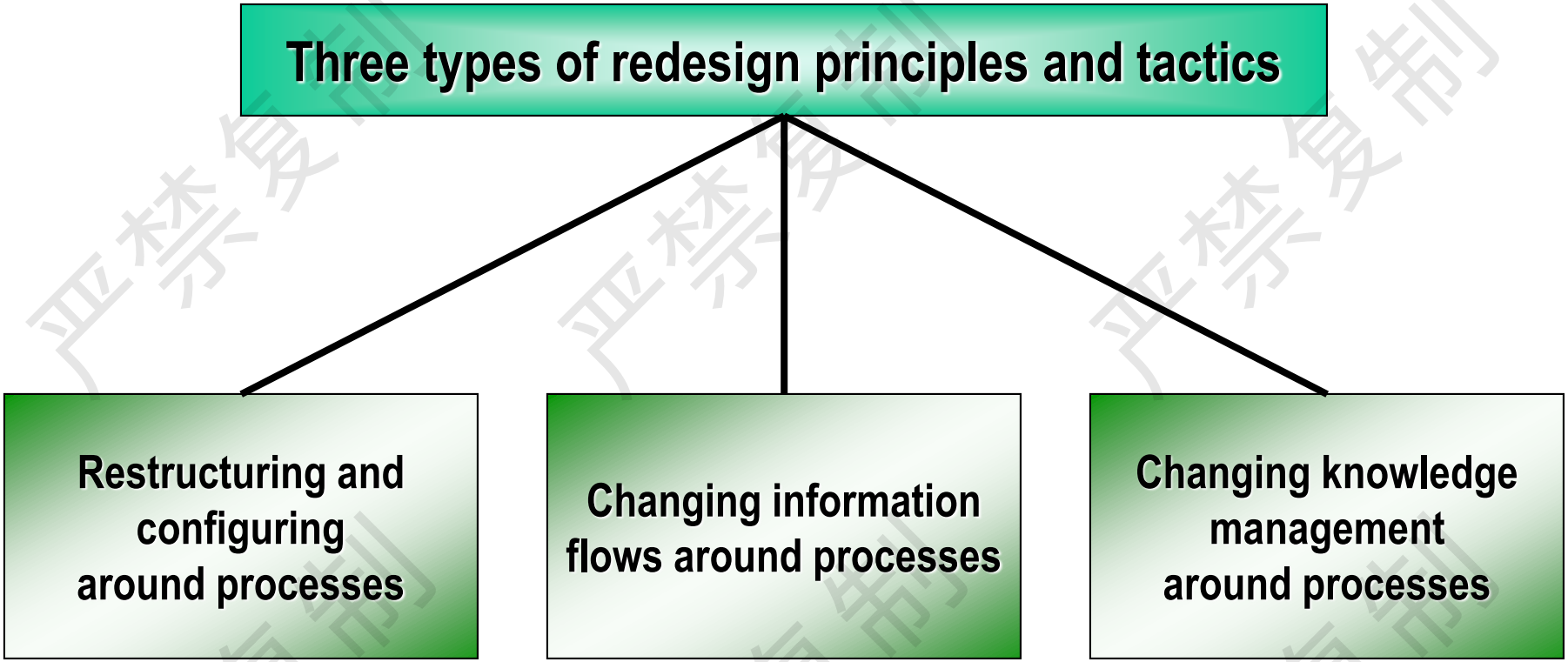
- BPR的第二个思想基础是系统集成。
- 该思想在BPR实践中的具体体现就是通过使用信息技术把流程中过细的分工有机地集成在一起，是对传统分工论的异化，它强调在企业流程中各活动之间应该尽可能地整合在一起，而不是把流程中的活动分解得越细越好。

BPR Principles

- **Maximize the value adding content of a process**
  - **Value can be speed, cost, learning, ROI, etc.**
- **Minimize everything else**
  - **waste, valueless complexities, obliterate unnecessary obsolete activities, and consolidate similar activities**

Principle #0: Streamline

Remove waste, simplify and consolidate similar activities



…. streamline

- Remove valueless activities:
  - Minimise waste by removing valueless complexities
- Simplify the process:
  - Reduce complexity / remove unnecessary tasks or paperwork
  - Standardize / automate the process
- Consolidate similar activities to reduce handoffs

➔Improvements in quality, time delays and cost

Principle #1: Lose Wait

Reduce waiting time in process links to create value

Common tactics:

- **Redesign time-sequential activities to be executed concurrently**
- **Create closed-loop teams for quicker flexible interaction**
- **Do not allow a support activity or management activity to delay a core value adding process**
- **Design for continuous flow**
- **Modify upstream practice to relieve downstream bottlenecks**

Principle # 2: Orchestrate

Let the swiftest and most able enterprise do the execution

Common tactics:

- **Partner a process with another enterprise**
- **Outsource a process to another enterprise**
- **Insource a process back into the enterprise**
- **Route the process through an infomediary**

Principle #3: Mass-customize

Flex the process for any time, any place, any way

Common tactics:

- **Make process more flexible, adaptable, versatile, etc. by:**
  - **expanding the time window for the process**
  - **migrating the physical space in which the process happens**
- **Create modular process platforms**
- **Push customization to occur closest to the customer**
- **Enable dynamic customization of product offerings**

Principle #4: Synchronize

Synchronize the physical and virtual parts of the process (O2O)

Common tactics:

- **Match the offerings on the physical and virtual parts of the channel**
- **Create common process platforms for physical and electronic processes**
- **Track the movement of physical products electronically**

Principle #5: Digitize and Propagate

Capture information digitally at source & propagate it through the process

Common tactics:

- **Shift data entry to customers**
- **Make process as paperless as possible as early as you can**
- **Make information more easily accessible upstream & downstream**
- **Shrink the distance between the information and the decision**

Principle #6: Vitrify

Provide high visibility through fresher and richer information about process status

Tactics:

- **Provide on-demand tracking information for customers of the process**
- **Provide reporting facilities for on-the-fly analysis**
- **Design standard partner interface processes for seamless exchange of information**

Principle #7: Sensitize

Fit the process with sensors and feedback loops to prompt action.

Tactics:

- **Build in customer feedback loops to detect process dysfunctions**
- **Enable software smarts to trigger quick business reflexes**
- **Attach environmental probes to the process to monitor change**

Principle #8: Analyze and Synthesize

Enhance the interactive analysis & synthesis capabilities around a process to generate value added Both the executors and the customers of process become more knowledgeable and enable better outcome of the process.

Tactics:

- **Provide what-if capabilities to analyze decision options**
- **Provide slice and dice data analysis capabilities that detect patterns**
- **Provide intelligent integration capabilities across multiple information sources**

Principle #9: Connect, Collect and Create

Capture intelligent & reusable knowledge around the process through all who touch it.

Tactics:

- **Define procedures to collect this knowledge**
  - **Create expertise maps & yellow-pages related to the project**
  - **Build knowledge repositories that can be reused to enhance the performance of the process**
- **Create physical/virtual spaces for storing this knowledge**
  - **Develop FAQ database through process doers**
  - **Create knowledge sharing spaces for interactive dialogues around the process**

Principle #10: Personalize

Make the process intimate with the preferences & habits of participants.

Common tactics:

- **Learn preferences of customers and doers of the process through profiling**
- **Insert business rules that are triggered by personal profiles**
- **Use automatic collaborative filtering techniques**
- **Keep track of personal process execution habits**

业务流程再造框架

- BPR研究人员提出了许多有价值的BPR框架。在这些BPR框架中，BPR生命周期法是最有影响的BPR框架之一。
- BPR生命周期法包括了6个阶段

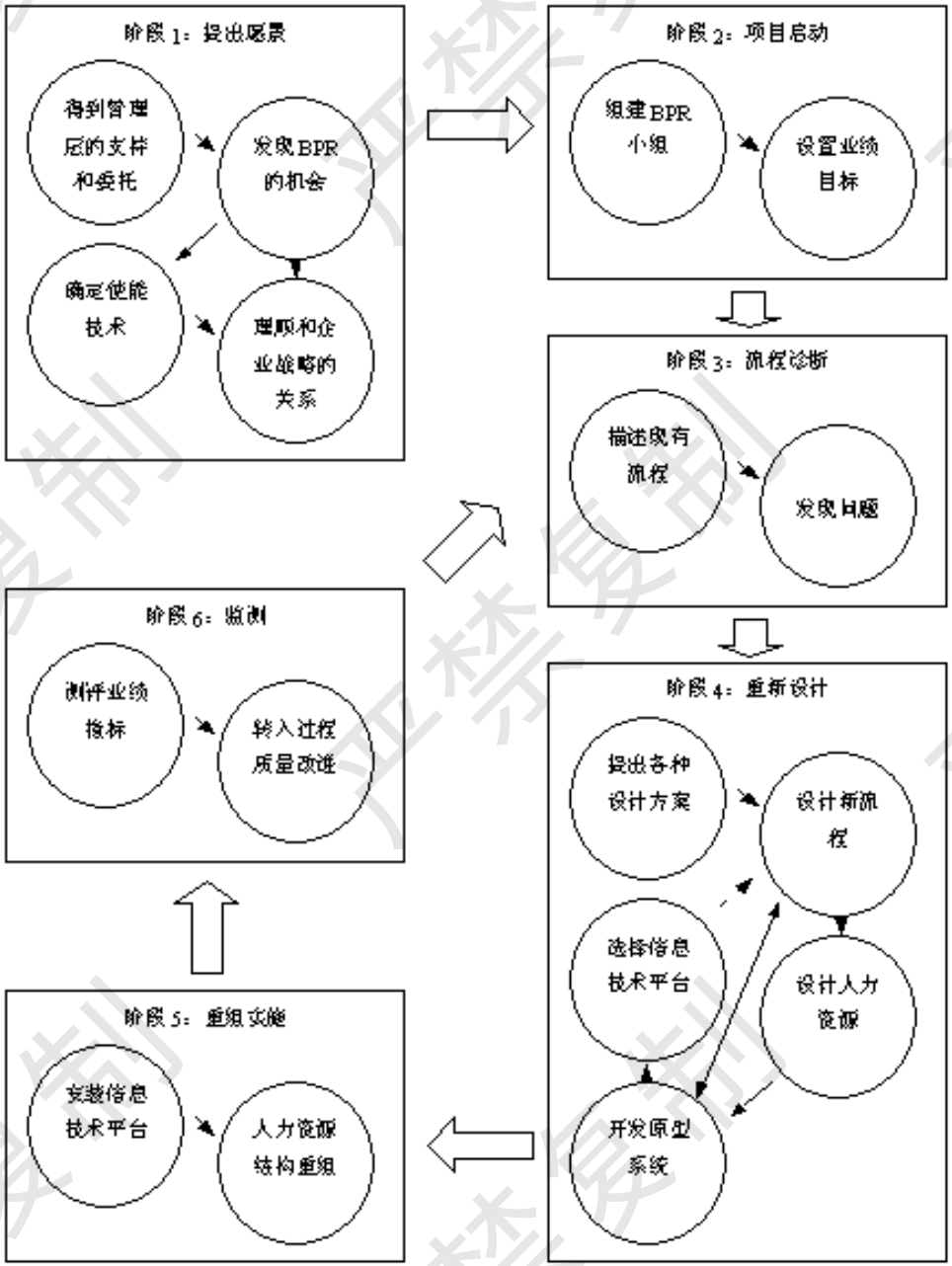
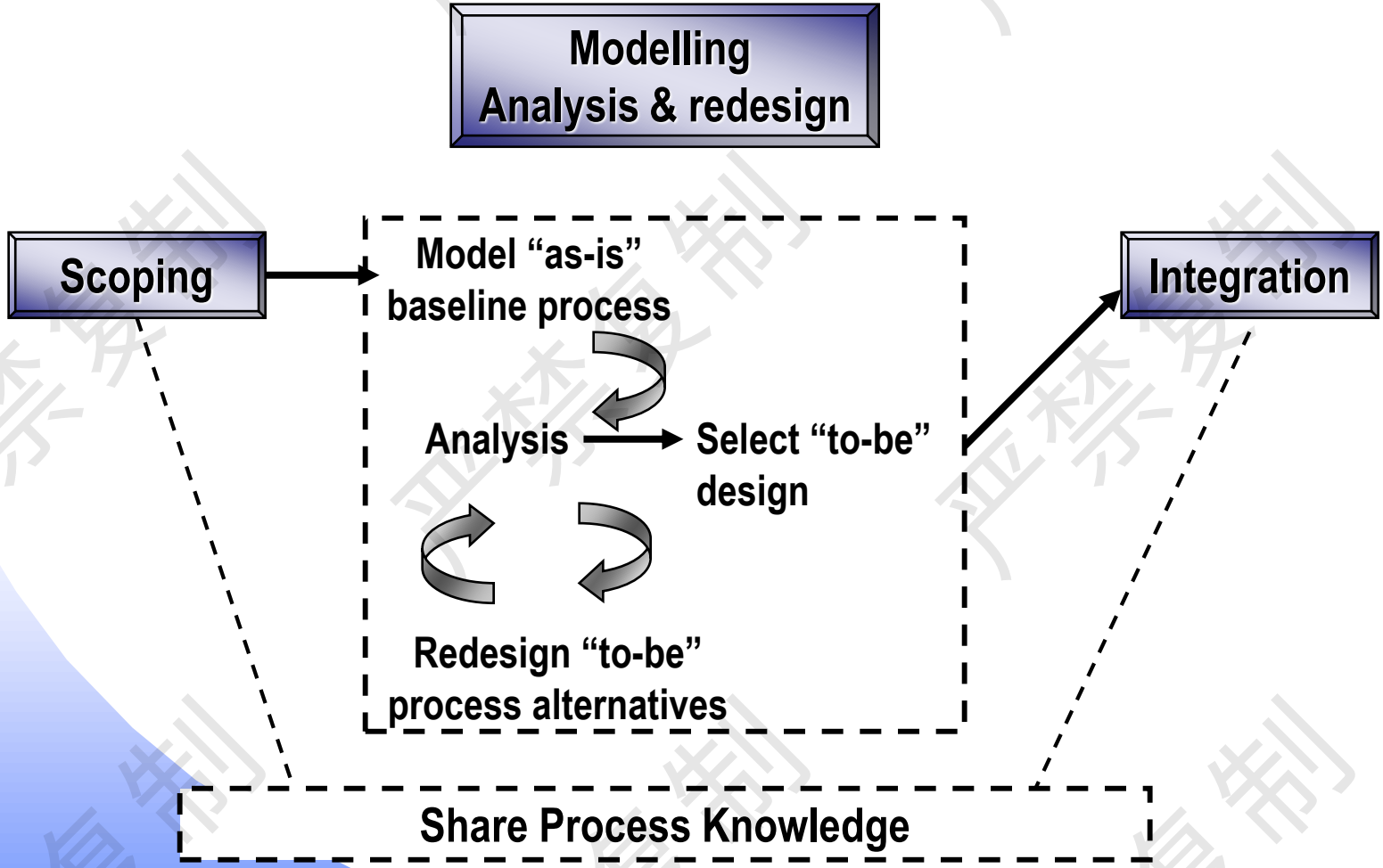


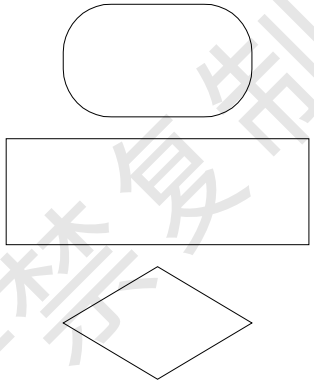
图 14-1　BPR 生命周期法的框架示意图

Key Phases of Business Process Redesign

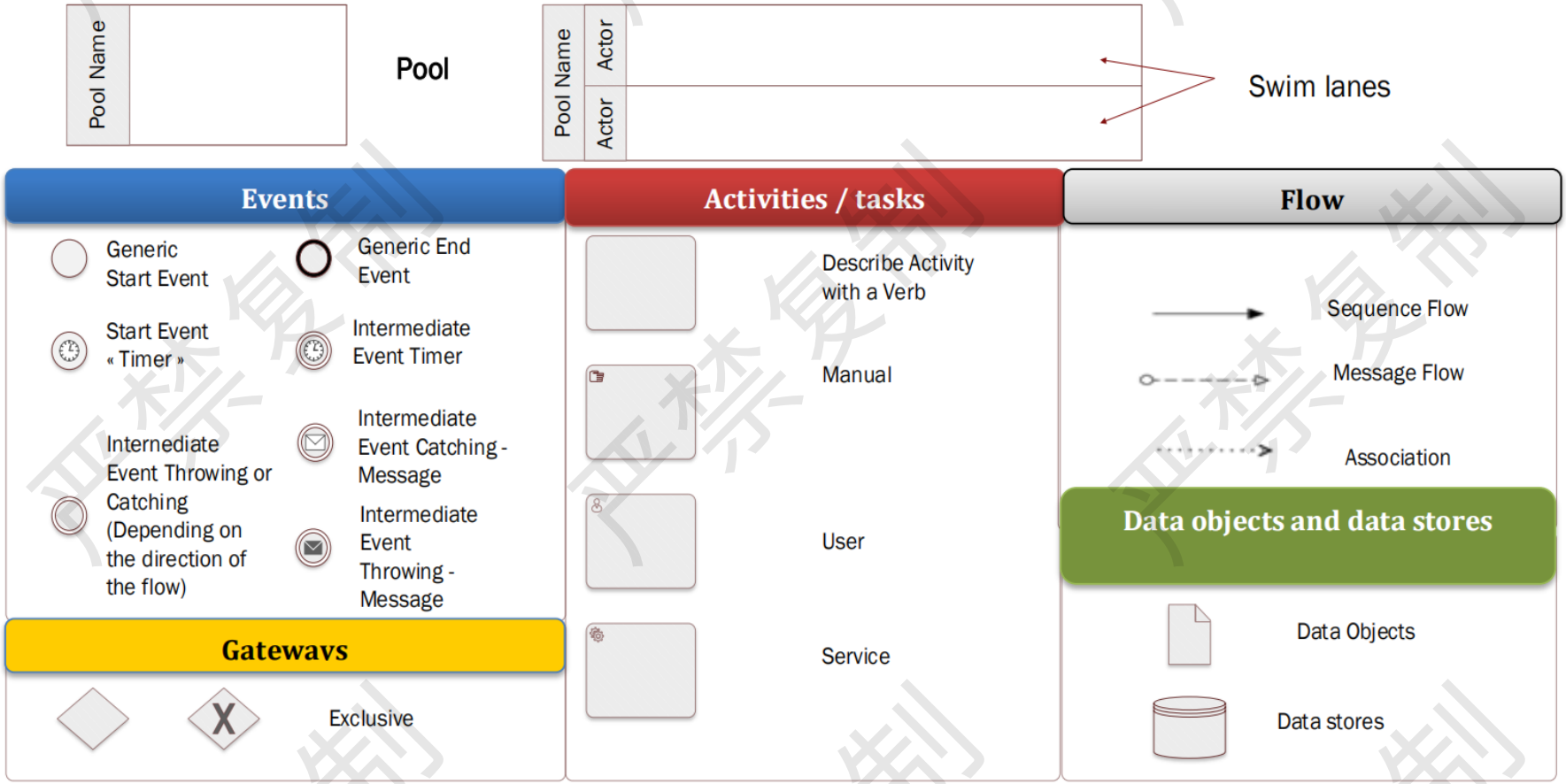


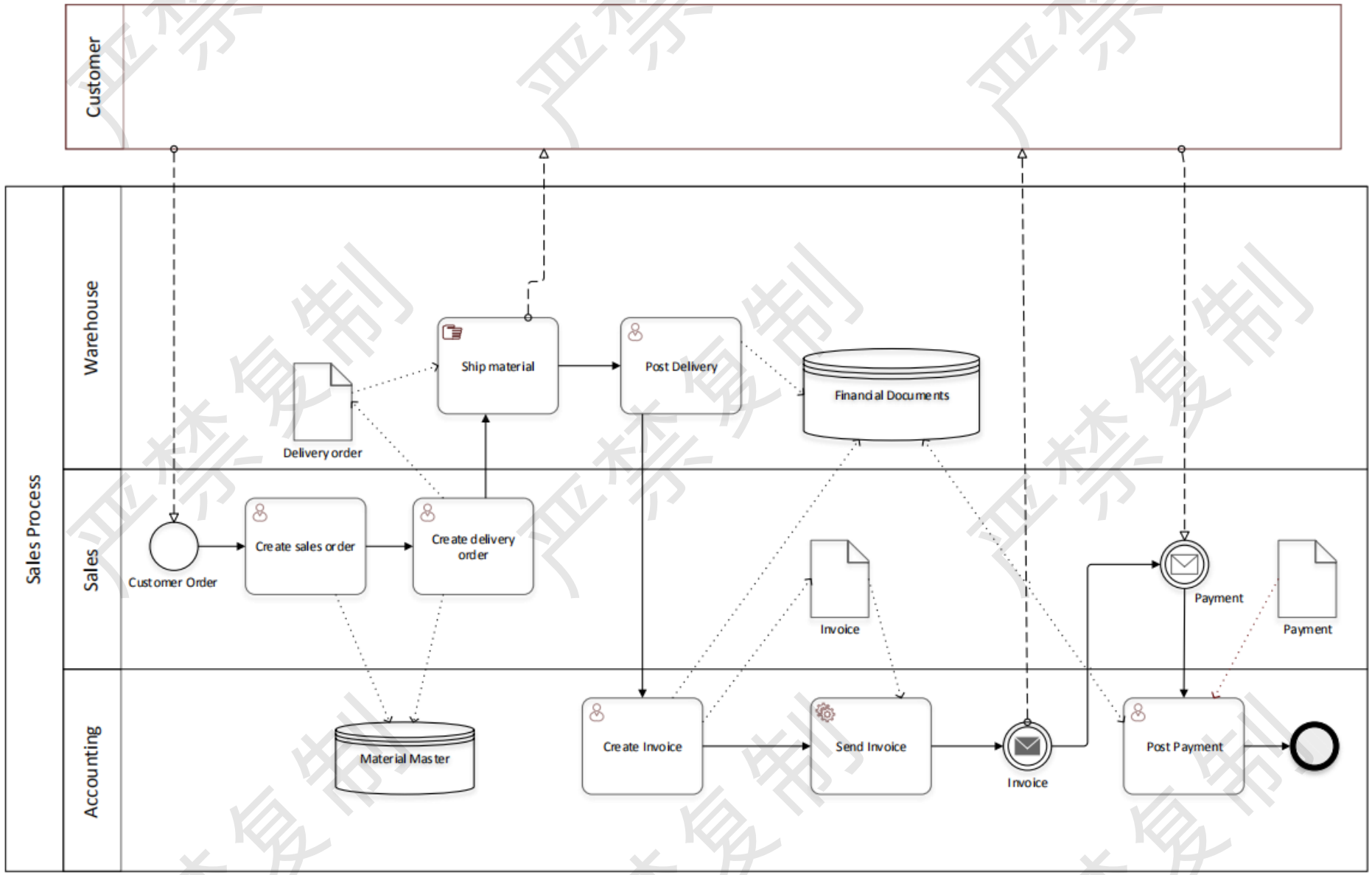
Simple Process Diagram

- **Event**
- **Activity**
- **Decision**



Business Process Model and Notation (BPMN)





Case 1: Distripharma

- Distripharma Inc. is a small enterprise that distributes pharmaceutical products. Pharmacists (usually the chief pharmacist in a given store) order their products directly from Distripharma's sales representatives. At Distripharma, the sales force is organized so that each pharmacist deals only with one sale representative from the company.
- Distripharma manual order processing and shipping process
  - The pharmacist places an order by calling a Distripharma sales representative. The sales representative writes the customer's information (activity #1) on a Sales order form. Then, the sales representative takes a folder with the list of products and writes down the products and quantities wanted by the pharmacist (activity #2). Once the activity is completed, the sales representative makes a copy of the sales order, sends this copy to the pharmacist, and stores the original copy in a folder with the rest of the sales orders (activity #3).
  - Every morning, the clerk in the shipping department retrieves the sales order from the sales order folder and arranges them by delivery sector (activity #4). Then, the clerk copies the information on each sales order on a delivery order form (activity #5). Once this task is completed, it goes to the warehouse to assemble all the products associated to a specific delivery note (activity #6) and places these products in the truck that corresponds to the delivery sector (activity #7). Then the clerk makes a copy of the delivery note, sends this copy to the pharmacists, and stores the original delivery note in the delivery note folder.

Case 2: Orbis Group

- Orbis Group is a small, Australian company that provides Internet and EC services. To put together a retail catalog or brochure, someone must gather of the many products to be advertised and consult with an ad agency on how to present them. These pictures are obtained from each manufacturer, such as Sony or Nokia.
- The traditional process works like this: When retailers need a photo of a product for a new brochure, they contact the manufactures, who send the photos via a courier to a designated as and converted into digital images, which are transferred to a print house, where the brochures are printed. The cycle time for each photo is 4 to 6 weeks, and the total transaction cost of preparing one picture for a brochure is about $140 AU.

Innovation

- One of its services, ProductBank revolutionized the flow of information and products in the B2B adverting field.
- With this new process, manufactures send digitized photos to Orbis, and Orbis enters and organizes the photos in a database.
- When retailers need pictures, they can view the digitized images in the database, decide which they want to include in their catalog, and communicate that information electronically to their ad agency, which views the photos in the Orbis database.
- When the ad agency completes its design, the pictures can be downloaded by the printer into the printing press. The transaction cost per picture (usually paid by the manufacturer) is 30 to 40 percent lower, and the cycle time 50 to 70 percent shorter than in the traditional catalog production method.

BPR中的争论和技术难点

- 先BPR再ERP，还是先ERP再BPR
- 流程识别
- 流程表示
- 业务流程设计与组织设计之间的关系

先BPR再ERP，还是先ERP再BPR

- 在ERP系统实施过程中，有关何时进行BPR，有两种截然不同的看法。
- 一种观点认为，应该先进行BPR，然后才能实施ERP系统。
- 另一种观点认为，只能在ERP系统实施之后，才能进行BPR。每一种观点都有自己的理由，争论起来往往各不相让。

流程识别

- 流程识别的主要内容包括关键业务流程与一般业务流程的识别、业务流程层次的识别、业务流程粒度的识别以及业务流程之间接口的识别。

流程表示

- 流程识别出来之后如何准确、清晰且有效地表示流程，以便与人交流和分析，这种问题被称为流程表示，也有些人称之为流程建模。
- 从当前的BPR研究和实践状况来看，有3种比较典型的流程表示法，即简单表示法、IDEF法和DFD法。

业务流程设计与组织设计之间的关系

- 业务流程最终要落实到组织上。业务流程设计与组织设计密切关联。
- 组织设计包括组织结构设计、部门职责编写、岗位设置以及岗位说明书编写。
- 在BPR过程中，必须很好地完成组织结构设计、部门职责编写、岗位设置及岗位说明书编写等工作。业务流程设计过程与组织设计过程往往是相互交错的。