

Figure 14.1 Varying capacity and utilisation along a supply chain

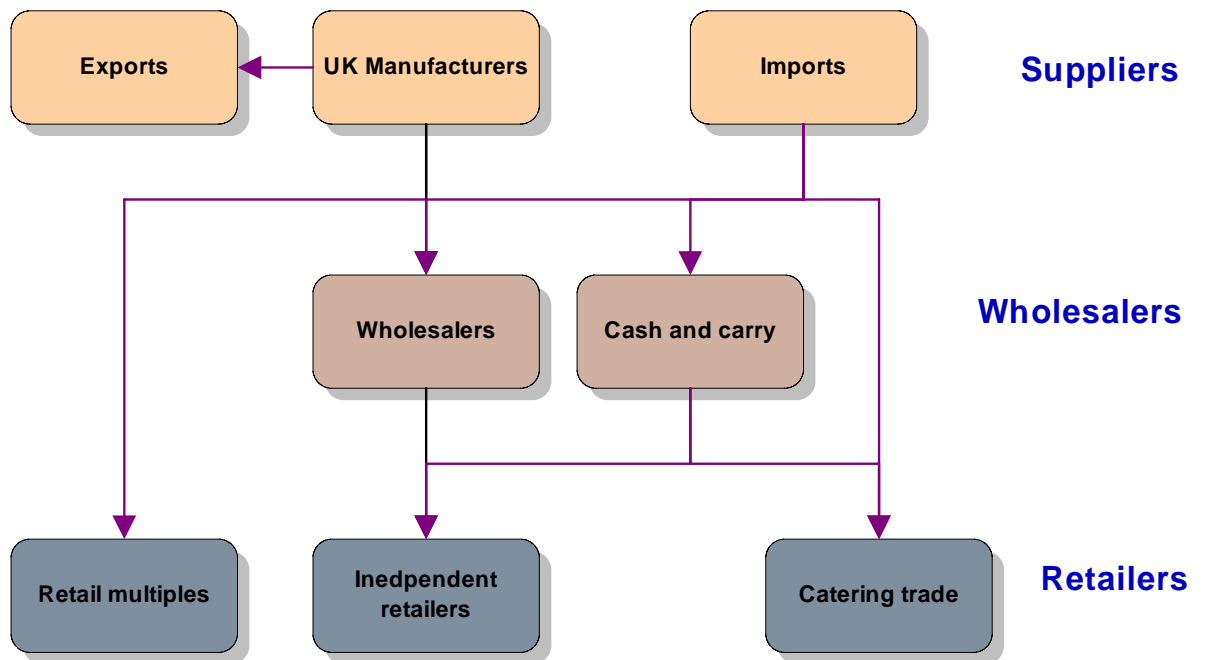


Figure 14.3 Structure of the UK frozen food industry

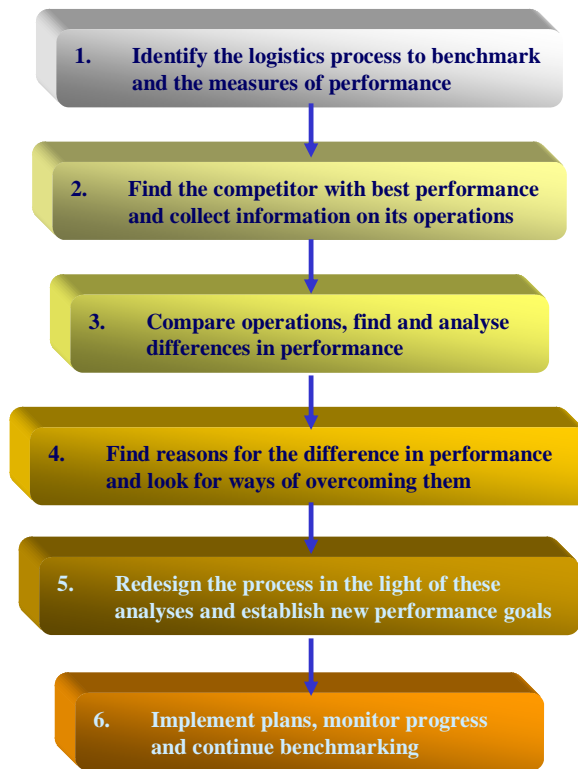
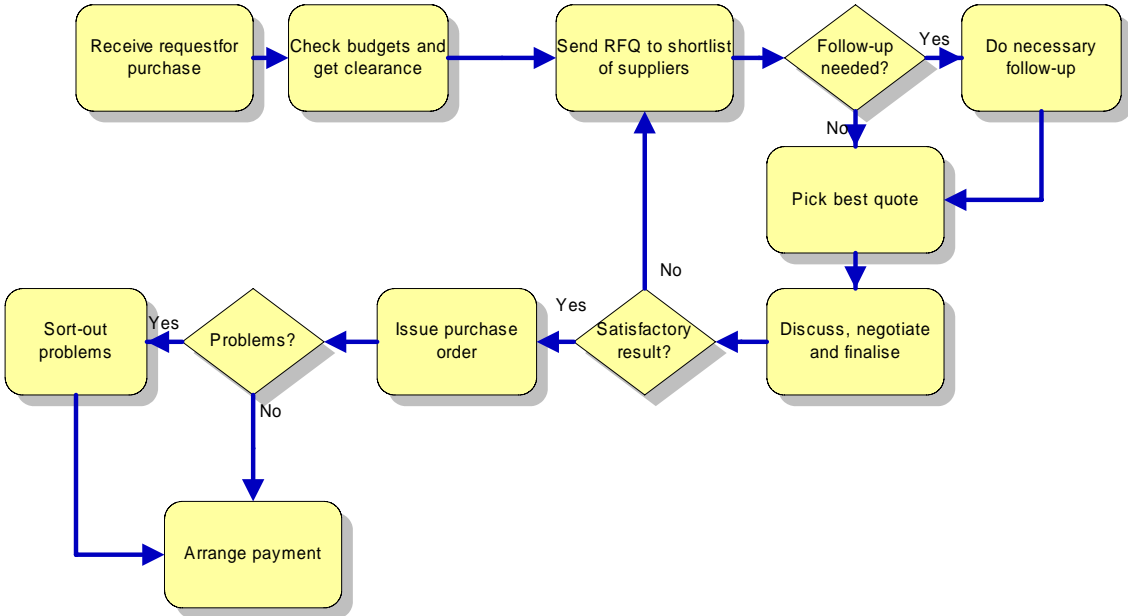


Figure 14.4 Steps in benchmarking

Figure 14.5 A flow chart for the process of making a purchase.



Process chart									
Number	Description	Operation	Move	Store	Delay	Inspect	Time	Distance	Comment
1	Get details of deliver	X					10		
2	Unload lorry	X					45		
3	Check goods					X	25		
4	Move to storage		X				15	100	
5	Store			X			450		
6	Take from store	X					15		
7	Move to consolidation		X				10	75	
8	Wait for check				X		20		
9	Check goods					X	15		
10	Move to shelves		X				12	110	
11	Put onto shelves	X					30		
Totals							647	285	

Figure 14.6 Example of a process chart

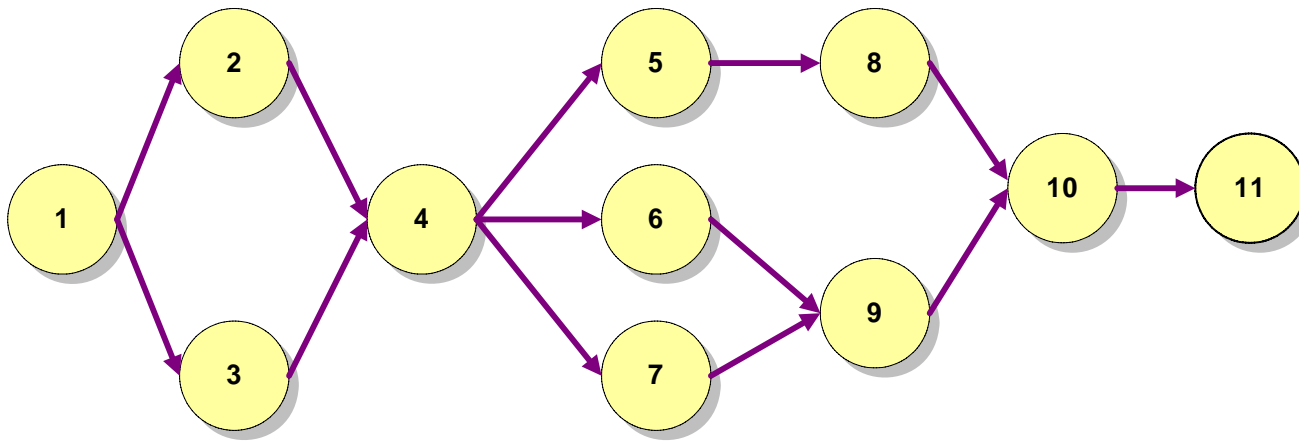


Figure 14.8 Precedence diagram for worked example

Multiple activity chart					
Time	Operator 1	Operator 2	Machine A	Machine B	Machine C
2	Load A	Load B	Load	Load	
4	Load A	Load B	Load	Load	
6	Load A	Load B	Load	Load	
8	Load C		Operate	Operate	Load
10	Load C		Operate	Operate	Load
12	Load C		Operate	Operate	Load
14	Unload A	Unload B	Unload	Unload	Operate
16	Unload A	Unload B	Unload	Unload	Operate
18	Load A	Load B	Load	Load	Operate
20	Load A	Load B	Load	Load	
22	Load A	Load B	Load	Load	
24		Unload C	Operate	Operate	Unload
26		Unload C	Operate	Operate	Unload
28		Load C	Operate	Operate	Load
30	Unload A	Load C	Unload		Load
Totals	24	24	30	28	20

Figure 14.9 Example of a multiple activity chart