**Inventory level**

***Imax***

***µ***

***t1***

***T***

***S***

**Lost sale**

**Figure 1:** Graphical presentation of the inventory system (Case 1*: t1≤ µ*)

**Inventory level**

***Imax***

***µ***

***T***

***t1***

***S***

**Lost sale**

**Figure 2:** Graphical presentation of the inventory system (Case 2*: t1≥ µ*)



***Profit***

***Time***

**Figure 3:** Graphical presentation of total profit function versus time (Example 1)



***profit***

***Time***

**Figure 4:** Graphical presentation of total profit function versus time (Example 2)



***Time***

***Profit***

Uniform distribution

Trianguler distribution

Double trianguler distribution

Beta distribution

**Figure 5:** Graphical presentation of total profit function versus time under different probabilistic deterioration functions (Example 3-6)

Case 3

Case 2

Case 1



***Profit***

***Time***

**Figure 6:** Graphical presentation of total profit function versus time for special cases (Example 7)