



Simplified “Make vs Buy” Decision Model for ID Card Printing

Purpose: Help organizations determine whether it is more cost-effective to **print employee ID cards in-house** or **outsource production to InstantCard**.

This model uses nine yes/no business conditions (toggles) to score which approach is more cost-effective.

1. Decision Factors and Weights

ID	Factor	Question (Yes = 1, No = 0)	Weight	Effect of “Yes”
F1	Multiple Locations	Do you operate across more than one office or job site?	+2	Outsourcing favored (centralized production ensures consistency).
F2	Hardware Costs	Do you already own and operate a functional ID card printer system?	-3	In-house favored (scale reduces per-card cost).
F3	Low or Infrequent Volume	Do you print fewer than ~25 cards/month?	+3	Outsourcing favored (avoids idle equipment and maintenance).
F4	Immediate On-Site Issuance Needed	Must cards be printed instantly for onboarding or visitors?	-4	Strongly favors in-house (outsourcing still involves shipping time).
F5	Limited Capital Budget	Would buying/maintaining printers strain your budget?	+2	Outsourcing favored (no capital expense; pay-per-card).
F6	Dedicated, Trained Staff Available	Do you have staff able to manage printers and design cards?	-2	In-house favored (you already have capability).
F7	Fluctuating or Seasonal Demand	Does card demand vary greatly during the year?	+2	Outsourcing favored (easy to scale up/down).
F8	Strict Security / Compliance Needs	Must IDs be produced on-site for data-control reasons?	-3	In-house favored (security policy requires local printing).
F9	Desire to Avoid Maintenance / IT Burden	Do you prefer not to handle printer upkeep or software?	+3	Outsourcing favored (InstantCard manages all production & QA).




Positive weights (+) favor **outsourcing**.
 Negative weights (-) favor **in-house** printing.
 Magnitude shows importance.

2. Calculation

Formula

$$\text{DecisionScore} = (F1^*+2) + (F2^*-3) + (F3^*+3) + (F4^*-4) + (F5^*+2) + (F6^*-2) + (F7^*+2) + (F8^*-3) + (F9^*+3)$$

Thresholds










Score Range	Recommendation
$\geq +2$	 It would be more cost-effective to outsource ID card printing to InstantCard.
≤ -2	 It would be more cost-effective to print ID cards in-house.
-1 to +1	 Either option could be viable; consider a hybrid or pilot model.

Optionally compute a **confidence level**:

$$\text{Confidence} = \min((|\text{DecisionScore}| / 16) \times 100\%, 100\%) .$$

3. Worked Examples

Example A - Small, Distributed Business

- Multiple locations 
- < 500 employees 
- Low/infrequent volume 
- No immediate on-site need 
- Limited capital budget 
- No trained staff 
- Seasonal demand 
- No strict security 
- Wants to avoid maintenance 

$$\text{Score} = (2^*1) + (-3^*0) + (3^*1) + (-4^*0) + (2^*1) + (-2^*0) + (2^*1) + (-3^*0) + (3^*1)$$

$$\text{Score} = +14$$

→ Recommendation: Outsource to InstantCard

Example B - Large Campus with On-Site Needs

- Single site ✗
- 2 000 employees ✓
- Continuous onboarding ✗
- Immediate printing ✓
- Adequate budget ✗
- Trained staff ✓
- Predictable demand ✗
- Strict security ✓
- Comfortable with maintenance ✗

Score = $(2*0) + (-3*1) + (3*0) + (-4*1) + (2*0)$
 $+ (-2*1) + (2*0) + (-3*1) + (3*0)$
Score = -12
→ Recommendation: Print in-house

Example C - Mid-Size Multi-Site Firm, No Technical Staff

- 3 locations ✓
- 400 employees ✗
- Regular but moderate hiring ✗
- No on-site printing need ✗
- Limited budget ✓
- No trained staff ✗
- Moderate seasonality ✓
- No strict security ✗
- Prefers zero maintenance ✓

Score = $(2*1) + (-3*0) + (3*0) + (-4*0) +$
 $(2*1) + (-2*0) + (2*1) + (-3*0) + (3*1)$
Score = +12
→ Recommendation: Outsource to InstantCard

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Author: InstantCard Technical & Marketing Team