• Support → fraction of transactions, containing both item A and B

$$Support(A \rightarrow B) = Prob(A \cap B)$$

• Confidence → How often the item B appears in transactions that contains item A

Eg: If 80% of transactions containing *milk* also contains *bread*, then

Confidence(Milk
$$\rightarrow$$
 Bread) = 0.8

$$Confidence(A \rightarrow B) = P(A \cap B) / P(A) = P(B|A)$$

• Lift → How much more likely, A and B occur together, compared to if they were independent

Interpretation:

- $\circ = 1$, indicates independent
- \circ > 1, positive association
- < 1, negative association

Eg: lift = 1.67, means A and B, co-occur 67% more often by chance.

• Leverage and Conviction