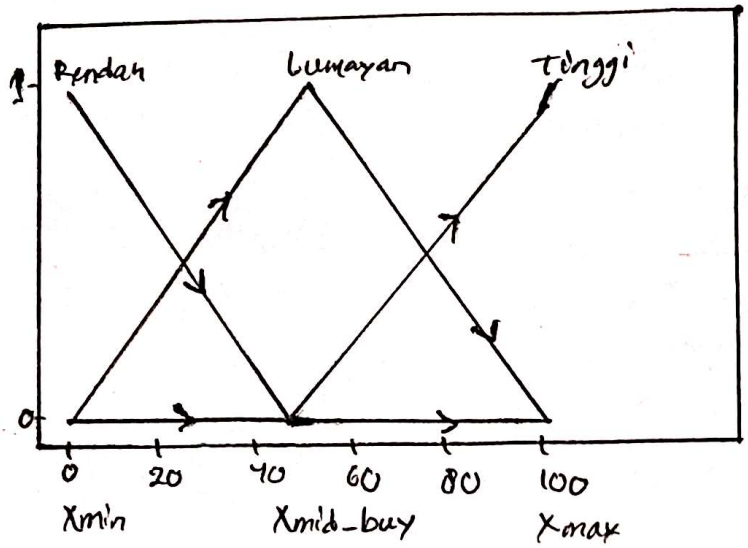
Kurnianto Octian Junaidi
2210114012S5
OSTRPLM006

"UAS Kecerdasan Buatan"

Jumlah Pembelian



* Jika X =
- Total Pembelian (X_{total_buy}) = 70
- Frekuensi Pelanggan (X_{Frek_cust}) = 8

$$\mu_{Rendah}[70] = \frac{mid_buy - x}{mid_buy - min} = \frac{50 - 70}{50 - 0} = \frac{-20}{50} = -0.4 = 0$$

$$\mu_{Lumayan}[70] = \frac{x - min}{mid_buy - min}, \text{ jika } X < mid_buy$$

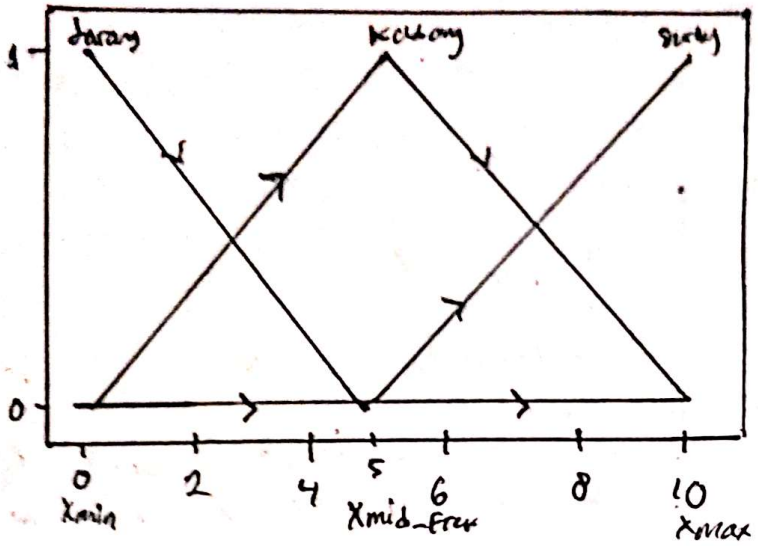
$$\frac{max - x}{max - mid_buy}, \text{ jika } X \geq mid_buy$$

Karena, $X \geq mid_buy$, maka

$$= \frac{100 - 70}{100 - 50} = \frac{30}{50} = 0.6$$

$$\mu_{Tinggi}[70] = \frac{x - mid_buy}{max - mid_buy} = \frac{70 - 50}{100 - 50} = \frac{20}{50} = 0.4$$

Frekuensi Pelanggan



$$\mu_{Jarang}[8] = \frac{Mid_Frek - X}{Mid_Frek - Min} = \frac{5-8}{5-0} = \frac{-3}{5} = -0.6 \doteq 0 //$$

$$\mu_{Kadang}[8] = \frac{X - Min}{mid_Frek - Min}, \text{ Jika } X \leq Mid_Frek$$

$$\frac{Max - X}{Max - Mid_Frek}, \text{ Jika } X \geq Mid_Frek$$

Karena $X = 8 \geq Mid_Frek$, maka

$$= \frac{10-8}{10-5} = \frac{2}{5} = 0,4$$

$$\mu_{Sering}[8] = \frac{X - Mid_Frek}{Max - Mid_Frek} = \frac{8-5}{10-5} = \frac{3}{5} = 0,6 //$$

Rule :

(R1) Jika Pembelian Rendah dan Jarang membeli apakah Besar diskon

(R2) Rendah, Kadang => Kecil

(R3) Rendah, Sering => Kecil

(R4) Lumayan, Jarang => Besar

(R5) Lumayan, Kadang => Kecil

(R6) Lumayan, Sering => Kecil

(R7) Tinggi, Jarang => Besar

(R8) Tinggi, Kadang => Besar

(R9) Tinggi, Sering => Kecil

diketahui

*Jumlah Pembelian

$N_{Rendah} = 0$

$N_{lumayan} = 0,6$

$N_{tinggi} = 0,4$

* Frek Pelanggan

$N_{Jarang} = 0$ $N_{Sering} = 0,6$

$N_{Kadang} = 0,4$

(R1) α - Predikat $= \min(N_{Rendah}[70] \cap N_{Jarang}[8])$

$= \min(0,0)$

$= 0$ => diskon $= 0$

(R2) $= \min(N_{Rendah}[70] \cap N_{Kadang}[8])$

$= \min(0, 0,4)$

$= 0$ => diskon $= 0$

(R3) $= \min(N_{Rendah}[70] \cap N_{Sering}[8])$

$= \min(0, 0,6)$

$= 0$ => diskon $= 0$

(R4) $= \min(N_{lumayan}[70] \cap N_{Jarang}[8])$

$= \min(0.6, 0)$

$= 0$ => diskon $= 0$

(R5) = min (N lumayan [70] ∩ N kadang [8])

= min (0,6 . 0,4)

= 0,4

= max − 0,4 × (max − min)

= 50 − 0,4 × 50

= 30 // (kecil)

(R6) = min (N lumayan [70] ∩ N sering [8])

= min (0.6, 0.6)

= 0.6

= 50 − 0.6 × (50 − 0)

= 20 // (kecil)

(R7) = min (N Tinggi [70] ∩ N jarang [0])

= min (0.4, 0)

= 0 //

(R8) = min (N Hinggi [70] ∩ N kadang [8])

= min (0.4, 0.4)

= 0,4 ⇒ 0 + 0.4 × (50 − 0) = 20

= 20 // (besar)

(R9) = min (tinggi [70] ∩ N sering [8])

= min (0.4, 0.6)

= 0.4

= 20 (kecil)

$$Fuzzy_real = (0.4 \times 30) + (0.6 \times 20) + (0.4 \times 20) + (0.4 \times 30)$$

$$= 12 + 12 + 8 + 12$$

$$= 44$$

$$Fuzzy = 0.4 + 0.6 + 0.4 + 0.4 =$$

$$= 1.8$$

$$z = \frac{Fuzzy_real}{Fuzzy}$$

$$= \frac{44}{1.8}$$

$$\approx 24.44\%$$

* Jadi, diskon yang didapatkan oleh pembeli adalah 24.44 %