ISM-E1004 - Business Analytics 2, Lecture, 8.1.2024-19.2.2024

To make sure all answers are saved
always finish your attempt before time is up!
Time left 0:27:11

Question 11

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The figure below contains a spreadsheet model where a financier is evaluating investment projects using an additive multiattribute utility model with three attributes.

$$u(x_1, x_2, x_3) = \sum_{i=1}^{3} w_i u_i(x_i)$$

$$u_1(x_1) = \sqrt{x_1/100}$$

Attribute weights		
Financial value (w_1)	Strategic fit (w_2)	Competence of team (w_3)
0.5	0.25	0.25

	Attribute-specific performances			Attribute-specific utilities			
	Financial value (k$)	Strategic fit	Competence of project team	Financial value	Strategic fit	Competence of project team	Overall utility
Project proposals	x1	x2	x3	u1(x1)	u2(x2)	u3(x3)	u(x1,x2,x3)
x^0	0	poor	1	0.00	0.00	0.00	0.00
x^*	100	wow	5	1.00	1.00	1.00	1.00
x^A	25	poor	3	0.50	0.00	0.50	0.38
x^B	75	good	5	0.87	0.40	1.00	0.78
x^C	20	great	2	0.45	0.60	0.25	0.44
x^D	40	wow	4	0.63	1.00	0.75	0.75

When assessing the attribute weights for this model the decision maker (DM) was asked to assess **the level of financial value** x_1, such that the alternatives (x_1,good,1) and (0,good,4) are equally preferred. **What was the DM's response**? Report your answer using one decimal.

In this problem, you get three tries such that after each incorrect try, one third (33%) of the maximum points is deducted.

Answer: 14.1

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