Quiz: 6th Semester Duration: 1 hour

Module: Data Analysis — Instructor: Dr. Soumaya Allaoui

Specialization: Finance — Level: Bachlor 3rd Level

Exercise1:

During a survey conducted on a sample of size 60, the following contingency table was obtained:

	J_1	J_2	Total
I_1	20 ·	20	40
I_2	75	15	90
I_3	45	35	80
Total	140	70	210

1. Calculate the frequency table associated with the given contingency table. (Tip: Use fractions instead of decimal numbers!)
2. Calculate the contribution values.
3. Calculate the χ^2-Square statistic. For $\alpha = 5\%$, what can you conclude about the relationship between the parameters? Deduce the inertia. (The critical valueχ^2_{0.05,2} is approximately 5.991.)
4. Calculate the row-profile matrix and deduce the mean row profile.
5. Calculate the diagonal matrix.
6. Calculate the χ^2-distance between the row profiles and interpret the results

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