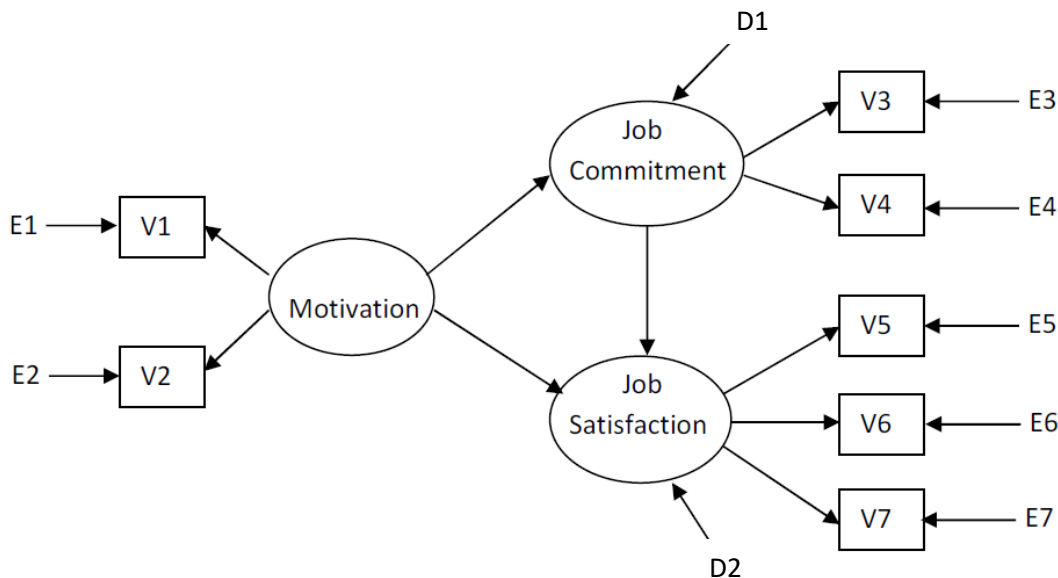


A study was conducted to investigate the relationship among motivation, job commitment, and job satisfaction. The hypothesized model is given below:



In this model, V1 and V2 are indicators that measure motivation, V3 and V4 measure job commitment, and V5, V6, and V7 measure job satisfaction. The samples consist of 204 male employees (Group 1) and 201 female employees (Group 2), who are recruited from a local organization. The sample covariance matrices of the variables are given below, and they can also be downloaded from our course Blackboard.

Group 1: Male (filename: *hw5_male(2020).cov*, $N=204$)

	V1	V2	V3	V4	V5	V6	V7
V1	1.50						
V2	1.27	4.51					
V3	1.05	1.35	4.83				
V4	1.17	1.38	2.26	4.42			
V5	.24	.23	.56	.56	.45		
V6	.20	.21	.44	.45	.23	.31	
V7	.20	.22	.26	.25	.19	.21	.39

Group 2: Female (filename: *hw5_female(2020).cov*, $N=201$)

	V1	V2	V3	V4	V5	V6	V7
V1	1.23						
V2	.73	2.65					
V3	.62	.75	4.43				
V4	.68	.74	2.42	4.57			
V5	.21	.24	.72	.73	.67		
V6	.18	.34	.53	.52	.41	.63	
V7	.19	.22	.51	.51	.36	.44	.74

- a. Using lavaan in R, run a maximum likelihood multisample analysis by fitting the hypothesized model to the data. Apply ULI for identification purpose. Evaluate the model goodness-of-fit in each gender group.
- b. Test if the direct effect of motivation on job satisfaction is statistically significant in each group (use $\alpha=.05$).
- c. Test if the indirect effect from motivation \rightarrow job commitment \rightarrow job satisfaction is significant in each group. Together with the findings in part (b), how would you describe the mediating role of job commitment in the two groups?
- d. Test the hypothesis of (weak) factorial invariance (equality of factor loadings) in the two groups. Briefly comment on the overall model's goodness-of-fit.
- e. *“Male employees are more heterogeneous in terms of their motivation than their female counterparts.”* Examine this claim empirically.
- f. Test if the direct effect of motivation on job satisfaction is the same in the two groups.
- g. Test if the mediation effect of motivation \rightarrow job commitment \rightarrow job satisfaction is moderated by gender.

***** WHEN YOU SUBMIT YOUR ASSIGNMENT, DON'T FORGET TO ATTACH A SIGNED STATEMENT ON ACADEMIC HONESTY *****