



**S3 Figure.** The SEM model of 2S3 eqn. The causal model is formed by two latent variables ( $\xi_1$  exogenous and  $\eta_1$ , endogenous), while  $\gamma$  represents the causal link according to the arrow's direction. Measurement model:  $x_1$ ,  $x_2$  (exogenous) and  $y_1$ ,  $y_2$  (endogenous) are manifest variables,  $\delta_1$ ,  $\delta_2$ ,  $\varepsilon_1$  and  $\varepsilon_2$  are their error terms,  $\lambda_1$ ,  $\lambda_2$ ,  $\lambda_3$  and  $\lambda_4$  are the factors loading.