

INFORMATION TECHNOLOGY USE AS A LEARNING MECHANISM: THE IMPACT OF IT USE ON KNOWLEDGE TRANSFER EFFECTIVENESS, ABSORPTIVE CAPACITY, AND FRANCHISEE PERFORMANCE

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Appendix A

MIMIC Model Analysis

A MIMIC (multiple indicators and multiple causes) model serves as a strong statistical validation technique for a set of formative indicators (Bagozzi 2011; Cenfetelli and Bassellier 2009; Diamantopoulos and Winklhofer 2001; Jöreskog and Goldberger 1975), and can be used when reflective indicators of related constructs to the focal formative construct are available. The method uses the reflective items as a criterion measure to establish the validity of the formative measures (MacKenzie et al. 2005). In its simplest form, a MIMIC model can be used when there are two sets of indicators that are tapping into the same construct, one formative and one reflective. In such a situation, the MIMIC model ties both sets of indicators as tapping into the same construct, wherein the formative indicators act as direct causes of the construct, which in turn are indicated by the reflective items (Diamantopoulos 2011; Diamantopoulos and Winklhofer 2001). We conducted a MIMIC model analysis with the three items that comprise the formative knowledge transfer effectiveness construct, and the six-item reflective knowledge transfer effectiveness construct. The results of the analysis are provided below in Figure A1. The Chi-square statistic of 159.92 (d.f. = 24; p-value < 0.0001) and other fit indices, also provided in Figure A1, indicate that the overall model fit is very satisfactory. In addition, each of the weights of the three formative indicators are statistically significant ($p < 0.01$), indicating that each of the three items contribute directly to the latent variable they are supposed to measure. An R^2 value above 0.33 for such a model is considered moderate (Chin 1998). Our results indicate that a high amount of variation in the reflective adaptation construct is explained by the formative construct. The R^2 value of 0.59 indicates that the formative adaptation construct captures similar variance as that of the reflective knowledge transfer construct. Taken together, the results of the MIMIC model analysis provide strong evidence for the validity of the formative measure of knowledge transfer.

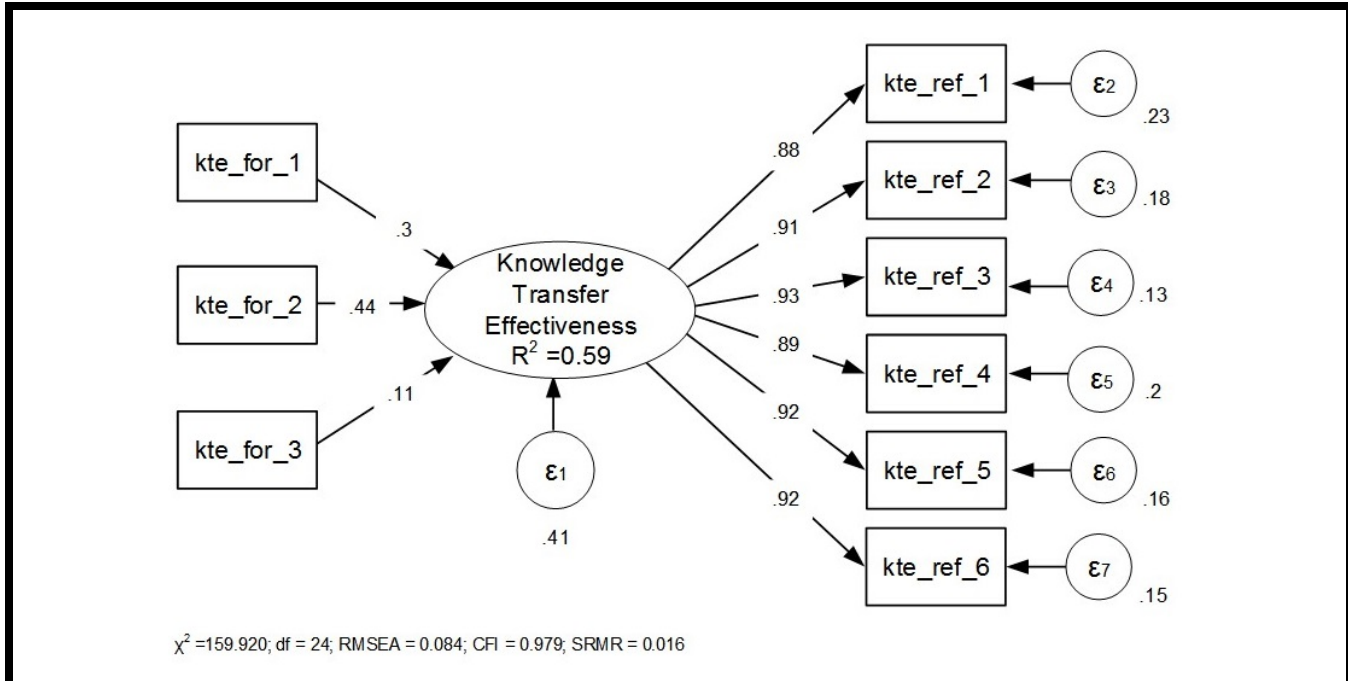


Figure A1. Knowledge Transfer Effectiveness MIMIC Model

References

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Appendix B

Alternate Specifications of the Research Model

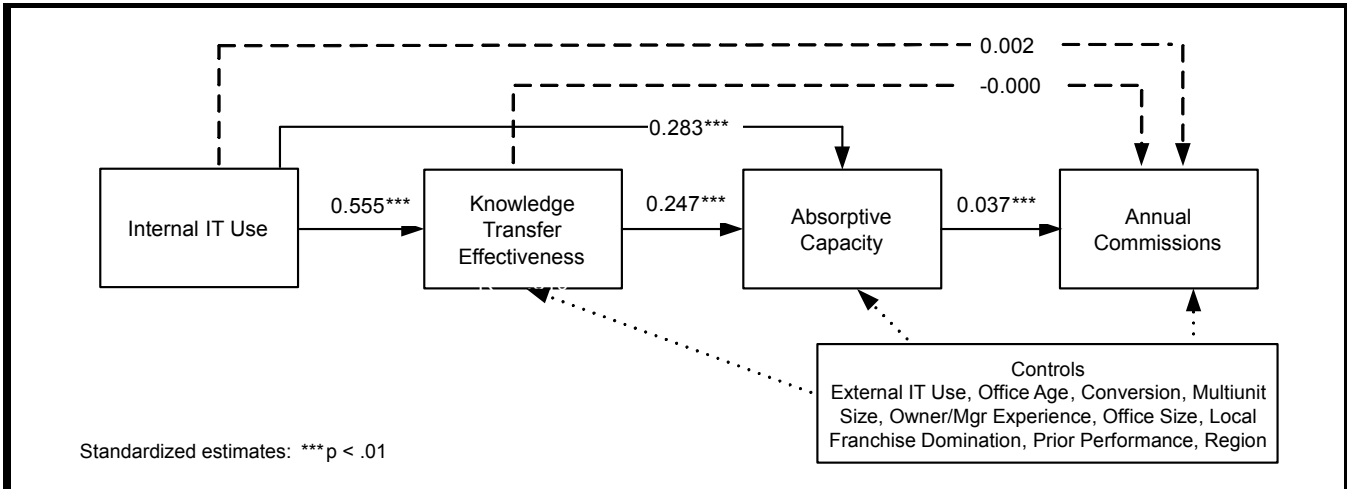


Figure B1. Annual Commissions as the Dependent Variable

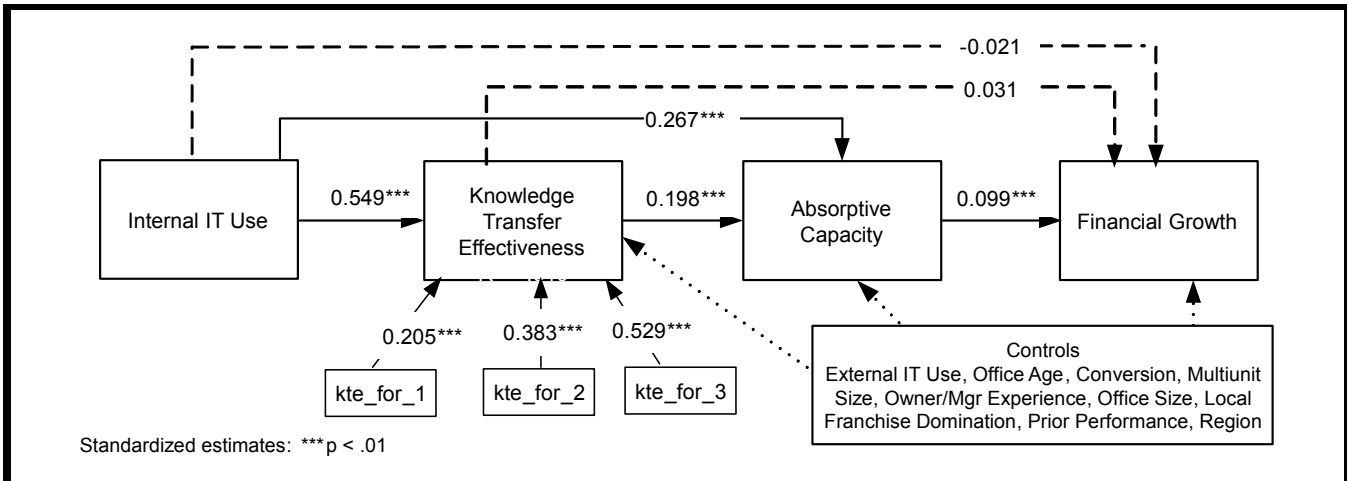


Figure B2. Knowledge Transfer Effectiveness Formative and Growth

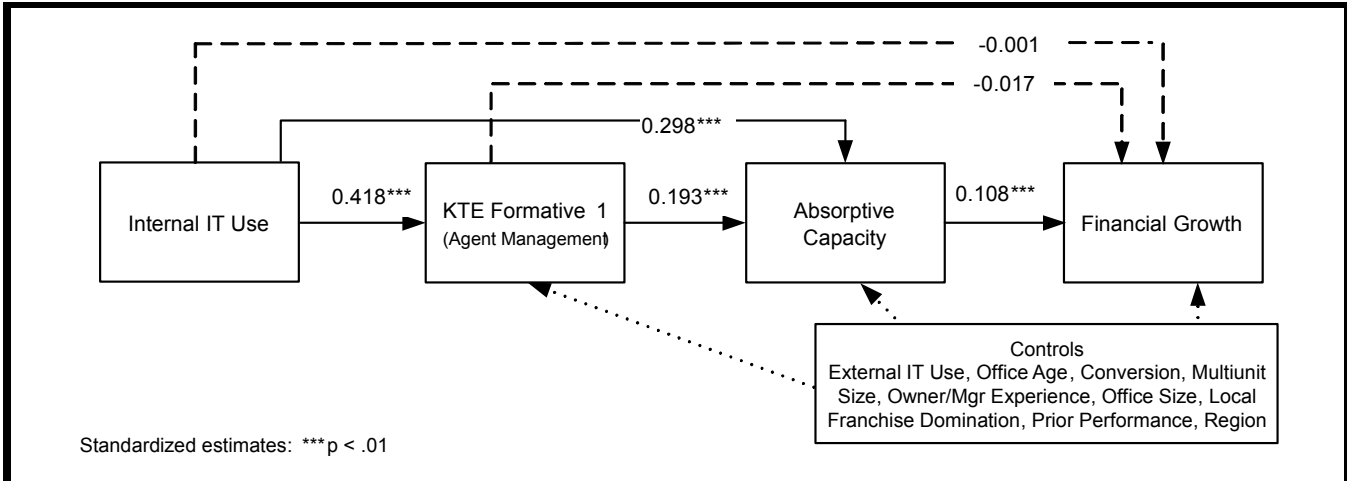


Figure B3. Results with Knowledge Transfer Effectiveness Formative 1

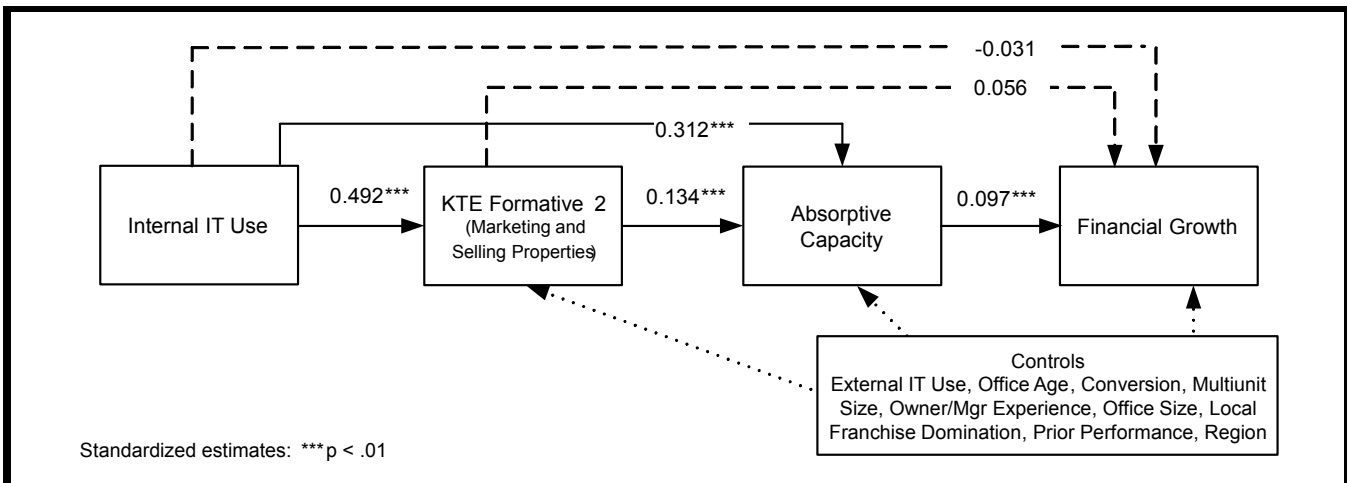


Figure B4. Results with Knowledge Transfer Effectiveness Formative 2

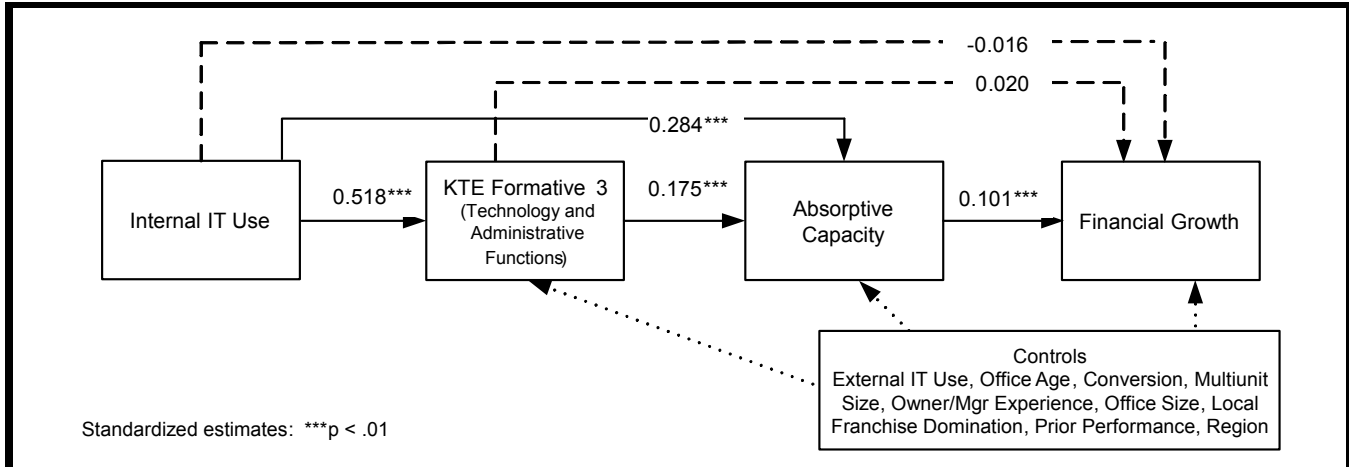


Figure B5. Results with Knowledge Transfer Effectiveness Formative 3