

Chapter 10

Grouping Regression Analysis

ABSTRACT

This chapter presents an analysis of gender differences in predictors of public satisfaction with government chatbots across government service and policy consultation scenarios. Behavioral quality significantly impacts satisfaction for both genders, especially in policy consultations, highlighting the importance of responsive interactions. Social support is a critical predictor for females, suggesting their reliance on social networks for information and validation, particularly in policy contexts. Emotional perception does not significantly influence satisfaction for either gender, challenging assumptions about emotional intelligence in chatbot interactions. Perceived system quality is crucial for female satisfaction in policy consultations, emphasizing the need for reliable and efficient chatbot systems. These findings enhance understanding of gender-specific needs in chatbot design and user satisfaction.

10.1 GROUPING REGRESSION MODEL-GOVERNMENT SERVICES

In this part, the male group is 1 and the female group is 2. The results of grouping regression are as follows:

Table 1(a). Grouping regression model (n=194) government services

	Total					1.0				
	B	S.E	t	p	β	B	S.E	t	p	β
Constant	0.095	0.161	0.592	0.555	-	0.080	0.227	0.350	0.727	-

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Table 1(a). Continued

	Total					1.0				
	<i>B</i>	S.E	<i>t</i>	<i>p</i>	β	<i>B</i>	S.E	<i>t</i>	<i>p</i>	β
Behavioral Quality	0.388**	0.064	6.022	0.000	0.399	0.441**	0.097	4.522	0.000	0.443
Social Support	0.290**	0.072	3.999	0.000	0.268	0.147	0.108	1.364	0.177	0.131
Emotional Perception	0.079	0.058	1.361	0.175	0.092	0.190	0.098	1.946	0.055	0.201
Perceived System	0.141*	0.067	2.103	0.037	0.133	0.116	0.110	1.059	0.293	0.106
Public expectation	0.086	0.045	1.900	0.059	0.088	0.104	0.076	1.372	0.174	0.105
<i>R</i> ²	0.791					0.817				
Adjustment <i>R</i> ²	0.785					0.805				
<i>F</i> -value	<i>F</i> (5,188)=142.120, <i>p</i> =0.000					<i>F</i> (5,78)=69.452, <i>p</i> =0.000				

* *p*<0.05 ** *p*<0.01

Table 1(b). Grouping regression model (*n*=194) government services

2.0				
<i>B</i>	S.E	<i>t</i>	<i>p</i>	β
0.271	0.237	1.146	0.254	-
0.298**	0.085	3.484	0.001	0.318
0.453**	0.097	4.673	0.000	0.446
0.005	0.071	0.076	0.939	0.007
0.128	0.083	1.536	0.128	0.131
0.052	0.056	0.920	0.360	0.055
0.752				
0.740				
<i>F</i> (5,104)=63.043, <i>p</i> =0.000				

* *p*<0.05 ** *p*<0.01

The presented grouping regression model, with a sample size of *n*=194, delves into the dynamics of government services, categorizing participants into male (group 1) and female (group 2). The analysis reveals intriguing insights into the influence of various factors on the perceptions and expectations within these groups. Firstly, behavioral quality emerges as a significant predictor across both male and female groups, with *B* coefficients of 0.441 and 0.298, respectively, indicating its robust impact. This suggests that individuals' behavior significantly shapes their perceptions of government services, with higher behavioral quality correlating positively with favorable perceptions. Secondly, social support exhibits varying degrees of

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