

# PET-STUDY RESULTS, MODEL, AND RECOMMENDATIONS

## FACTOR ANALYSIS

### BELIEF ITEMS

#### Total Variance Explained

Component	Total	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
		% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	
1	8.489	30.317	30.317	8.489	30.317	30.317	6.854	24.480	24.480	
2	3.624	12.942	43.259	3.624	12.942	43.259	3.188	11.386	35.865	
3	2.215	7.911	51.170	2.215	7.911	51.170	2.255	8.053	43.918	
4	1.839	6.569	57.739	1.839	6.569	57.739	2.048	7.315	51.233	
5	1.354	4.835	62.574	1.354	4.835	62.574	1.849	6.603	57.836	
6	1.052	3.756	66.330	1.052	3.756	66.330	1.800	6.427	64.264	
7	1.002	3.577	69.907	1.002	3.577	69.907	1.580	5.643	69.907	
8	.938	3.350	73.257							
9	.825	2.948	76.205							
10	.764	2.727	78.931							
11	.696	2.486	81.418							
12	.686	2.449	83.867							
13	.618	2.206	86.074							
14	.587	2.097	88.170							
15	.489	1.747	89.917							
16	.444	1.587	91.505							
17	.367	1.311	92.816							
18	.299	1.068	93.883							
19	.290	1.037	94.920							
20	.264	.941	95.861							
21	.244	.872	96.733							
22	.214	.764	97.498							
23	.188	.671	98.168							
24	.144	.516	98.684							
25	.126	.449	99.133							
26	.098	.351	99.484							
27	.088	.314	99.799							
28	.056	.201	100.000							

## Rotated Factor Matrix

(NOTE: loadings that have an absolute value  $\geq .450$  are underlined/highlighted, and used for interpretation.)

	1	2	3	4	5	6	7
The best pets are independent.	-.012	<u>.765</u>	-.060	.066	.083	-.176	-.003
The best pets don't need constant attention.	-.114	<u>.756</u>	.055	-.189	.130	-.120	.294
Caring for a pet takes a lot of work, time and effort.	.178	.021	.074	.028	<u>.848</u>	.122	.133
Pets are a big responsibility.	.530	.012	.005	-.203	<u>.632</u>	.234	.049
Owning a pet enhances overall well-being.	<u>.889</u>	-.007	.106	.020	.089	-.119	.146
Pets are good for mental health.	<u>.907</u>	-.044	.111	.027	.155	.008	.077
Pets make peoples lives better.	<u>.905</u>	.015	.146	.072	.107	-.050	.053
The best pet is highly affectionate.	.357	.022	<u>.499</u>	.385	-.003	-.129	.322
Pets are good companions for people.	<u>.658</u>	.007	.280	.384	.110	-.025	.217
Pets are good for people who are lonely.	<u>.459</u>	.025	.180	.394	.189	-.112	.269
The best pets get excited to see you	.415	-.096	<u>.639</u>	.144	-.048	-.079	.370
Pets understand human emotion.	.405	.006	.221	<u>.549</u>	.060	-.182	.155
Pets have souls.	<u>.763</u>	-.035	-.081	.326	.017	.018	-.043
Pets are part of the family.	<u>.876</u>	-.121	.183	.166	<u>.155</u>	.018	.048
Pets are expensive.	.206	.252	.234	.328	<u>.524</u>	.210	-.265
The cost of having a pet is worth it.	<u>.880</u>	-.067	.026	.147	.064	-.093	-.021
The best pets are cheap to care for.	-.268	.426	.201	.306	.097	.185	.220
Smaller pets are better than larger pets.	-.119	.451	.195	-.222	-.121	<u>.491</u>	-.210
The best pet is one that likes going for walks with its owner.	.065	-.076	<u>.787</u>	.054	.126	.091	-.030
The best pet is one that likes resting.	.154	<u>.535</u>	.187	.130	-.301	.159	.389
The best pet is one that likes wandering the neighborhood on its own.	.014	<u>.668</u>	-.104	.032	-.014	.210	-.276
The best pets take care of themselves.	-.042	<u>.871</u>	.009	.033	.003	.116	.024
It is important that a pet is able to protect my property.	.096	.166	<u>.662</u>	.007	.050	.192	-.169
Pets create messes.	.029	-.003	.177	.103	.368	<u>.640</u>	.082
Pets smell bad.	-.186	.029	.019	-.110	.116	<u>.797</u>	.227
It is important that a pet isn't aggressive.	.190	.096	-.098	.041	.117	.307	<u>.748</u>
Pets are very intelligent.	.558	.090	-.131	<u>.654</u>	-.051	.051	-.060
A pet is a person's best friend.	<u>.562</u>	-.067	.216	.555	-.091	-.028	-.116

## Interpretation And Names Of Belief Factors

	<b>Name/Title of Belief Factor</b>	<b>Interpretation of Belief Factor</b>
Belief Factor 1	Benefits	Pets have a positive impact on our lives
Belief Factor 2	Independence	The best pets can be left on their own
Belief Factor 3	Energy	The best pets have high energy.
Belief Factor 4	Emotional Intelligence	Pets have emotional intelligence
Belief Factor 5	Responsibility	Caring for a pet is a large responsibility.
Belief Factor 6	Inconvenience	Large pets are a nuisance
Belief Factor 7	Aggression	It is important that a pet is not aggressive.

## PSYCHOGRAPHIC ITEMS

### Total Variance Explained

Component	Total	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
		Initial Eigenvalues		Cumulative %	Extraction Sums of Squared Loadings		Cumulative %	Rotation Sums of Squared Loadings		Cumulative %
		Total	% of Variance		Total	% of Variance		Total	% of Variance	
1	7.900	26.334	26.334		7.900	26.334	26.334	4.868	16.226	16.226
2	3.488	11.627	37.961		3.488	11.627	37.961	3.316	11.055	27.280
3	3.309	11.029	48.990		3.309	11.029	48.990	2.707	9.022	36.302
4	1.699	5.663	54.652		1.699	5.663	54.652	2.688	8.960	45.263
5	1.545	5.150	59.802		1.545	5.150	59.802	2.391	7.970	53.233
6	1.427	4.758	64.560		1.427	4.758	64.560	2.274	7.579	60.812
7	1.057	3.522	68.082		1.057	3.522	68.082	1.749	5.830	66.642
8	1.025	3.415	71.498		1.025	3.415	71.498	1.457	4.856	71.498
9	.947	3.156	74.653							
10	.736	2.454	77.107							
11	.708	2.361	79.467							
12	.615	2.049	81.516							
13	.604	2.014	83.530							
14	.553	1.843	85.373							
15	.501	1.670	87.042							
16	.473	1.576	88.618							
17	.399	1.331	89.949							
18	.373	1.242	91.191							
19	.355	1.184	92.375							
20	.315	1.050	93.425							
21	.300	.999	94.424							
22	.275	.916	95.339							
23	.257	.856	96.196							
24	.224	.748	96.943							
25	.215	.718	97.661							
26	.200	.665	98.326							
27	.166	.554	98.880							
28	.141	.470	99.349							
29	.119	.396	99.745							
30	.070	.055	100.000							

## Rotated Factor Matrix

(NOTE: loadings that have an absolute value  $\geq .450$  are highlighted, and used for interpretation.)

ONE EXCEPTION, the item I am open minded with .449 is underlined/highlighted, and used for interpretation.)

	1	2	3	4	5	6	7	8
I enjoy being in the company of others.	.176	<b>.681</b>	-.124	.336	-.050	.124	.126	.170
I'm comfortable having a conversation with anybody.	.122	<b>.792</b>	-.021	.078	.044	.125	.038	.023
I feel energized when I interact with new people.	-.019	<b>.630</b>	-.099	.345	.145	-.137	.173	.084
I prefer to be alone most of the time.	-.183	<b>-.459</b>	.404	.083	.185	.056	.318	.175
I initiate conversations with strangers.	-.067	<b>.753</b>	.020	.107	.192	.045	-.109	-.004
I enjoy being at home.	-.067	.099	<b>.724</b>	.185	.020	.326	-.015	-.098
I am a homebody.	-.062	-.036	.895	-.031	-.055	-.111	.004	-.003
I enjoy staying at home instead of going out.	-.027	<b>-.187</b>	<b>.742</b>	.015	.046	-.050	.221	.169
I like taking care of people.	.274	<b>.522</b>	.263	.351	-.124	.260	.245	-.137
I enjoy exercising and staying active.	<b>.834</b>	.036	-.156	.016	.308	.124	.051	.025
I enjoy exercising in groups.	<b>.667</b>	.263	-.128	-.057	.074	-.087	.064	.400
I like playing sports.	<b>.865</b>	.071	-.108	.095	.049	-.014	-.167	.060
I enjoy exercising outside.	<b>.827</b>	.023	.015	.160	.154	.215	-.122	-.210
I enjoy going outside.	<b>.678</b>	.077	.115	.347	.192	.215	.227	-.121
I enjoy spending time in nature.	<b>.620</b>	-.025	.184	.237	.250	.168	.271	-.091
I prefer a laid-back lifestyle.	.233	.067	<b>.575</b>	-.067	-.329	.465	.118	.088
I am an energetic person.	.275	.276	<b>-.058</b>	<b>.651</b>	.133	.207	-.113	.110
I like constant attention.	-.038	.274	.166	<b>.695</b>	.038	.054	-.327	.232
I am a very independent individual.	.219	-.007	.100	.007	.070	.816	.101	.019
I like going on long trips away from home.	.025	.151	-.097	.328	.052	<b>.559</b>	.201	.454
I frequently go for walks.	.354	.163	-.080	.075	<b>.829</b>	.070	.051	-.011
I like going on long daily walks.	.303	.191	-.026	.006	<b>.851</b>	.026	.057	-.026
I work a lot.	.390	-.290	.077	.203	<b>.551</b>	.113	.217	.057
I travel often.	.245	.220	.052	.244	<b>.193</b>	<b>.528</b>	-.288	.196
I have a healthy lifestyle.	<b>.568</b>	.222	.046	-.082	.349	.321	.141	-.007
I am a patient person.	.047	.099	.209	<b>-.084</b>	.138	.069	.808	.022
I enjoy physical touch.	.238	.264	.063	<b>.749</b>	.053	.061	.246	.033
I am open minded.	.225	.378	.090	.360	.089	.393	<b>.449</b>	.150
I don't like clingy behavior	<b>.486</b>	-.041	-.013	-.455	.085	.261	.223	.389
I don't do well with strict daily regimens.	-.064	.034	.135	.149	-.047	.118	-.022	<b>.776</b>

## Interpretation And Names Of Psychographic Factors

	<b>Name/Title of Psychographic Factor</b>	<b>Interpretation of Psychographic Factor</b>
Psychographic Factor 1	Exercise	I prefer a healthy lifestyle for myself.
Psychographic Factor 2	Sociability	I find joy in interacting with others.
Psychographic Factor 3	Home	I prefer a relaxing at home over going out.
Psychographic Factor 4	Company	I enjoy having company around me.
Psychographic Factor 5	Walking	I enjoy long walks to clear my mind from working.
Psychographic Factor 6	Travel	I enjoy traveling alone.
Psychographic Factor 7	Patience	I am a patient person.
Psychographic Factor 8	Strict Routine	I do not do well with strict daily regiments.

# DISCRIMINANT ANALYSIS

## Discriminant Function

BeliefFactor2	.729
BeliefFactor3	-.858
BeliefFactor7	.366
(Constant)	.000

$$D = .000 + .729(\text{Independence}) - .858(\text{Energy}) + .366(\text{Aggression})$$

## Group Centroids

Cat	.787
Dog	-.517

## Mean Values For Each Factor by Choice Group

Cat	BeliefFactor1	.0383939
	BeliefFactor2	.4095683
	BeliefFactor3	-.4821290
	BeliefFactor4	.0093949
	BeliefFactor5	-.1699010
	BeliefFactor6	-.0446487
	BeliefFactor7	.2054847
	PsychographicFactor1	-.2353360
	PsychographicFactor2	-.0566919
	PsychographicFactor3	.0867925
	PsychographicFactor4	-.1252962
	PsychographicFactor5	-.0751522
	PsychographicFactor6	.1321805
	PsychographicFactor7	.1453330
	PsychographicFactor8	.1183080
Dog	BeliefFactor1	-.0251960
	BeliefFactor2	-.2687792
	BeliefFactor3	.3163971
	BeliefFactor4	-.0061654
	BeliefFactor5	.1114975
	BeliefFactor6	.0293007
	BeliefFactor7	-.1348494
	PsychographicFactor1	.1544393
	PsychographicFactor2	.0372041
	PsychographicFactor3	-.0569576
	PsychographicFactor4	.0822256
	PsychographicFactor5	.0493186
	PsychographicFactor6	-.0867435
	PsychographicFactor7	-.0953748
	PsychographicFactor8	-.0776396

## Classification Results

		Which type of pet below do you most prefer? Cat (1) or Dog (2)	Predicted Group Membership		
Actual	Count		Cat	Dog	Total
		Cat	32	10	42
		Dog	14	50	64

77.4% of original grouped cases correctly classified.

Cpro% = 52.15

Given that  $77.4\% > 52.15$ , the discriminant function predicts. Better than chance

## Difference(s) Between Those Who Prefer Dogs, And Those Who Prefer Cats

Based on the discriminant model with the sample data, the following is observed:

Factor Name	Cat Mean Value	Dog Mean Value
Independence	.4095683	-.2687792
Energy	-.4821290	.3163971
Aggression	.2054847	-.1348494

There are three differences between those who prefer Cats, and those who prefer Dogs:

- People who like cat's value independence in their pet more.
- People who like dogs prefer higher overall energy from their pet.
- People who like cat's have a lower tolerance for aggression in their pet.

## MARKETER-ACTION RECOMMENDATIONS

Companies that are a part of the pet industry can use this information to better target their consumers by what pet they have. With the three aforementioned differences we have collected through our data we have three focus point for how the marketing strategy can differ depending on the pet. For example, since cat owners value independence they can make and market more products that add independence between cat and owner, some ideas would be automatic cat feeder/waterer, self-cleaning litterbox etc. Using this strategy companies can heavily market athletic gear for dog owners like ball throwers or harnesses for jogging with your pet. There can also be more safety items produced to help cat owners deal with any aggression their cat may have. With these three differences companies are able to monopolize on the new attributes found in typical dog and cat owners further increasing profits and exposure for the company.