



### Aim of the paper



**The purpose of this paper is to determine the determinants of trophy hunters spending in South Africa**

### Introduction



- One of South Africa's key wildlife product offerings is hunting
- There are approximately 9000+ game farms in South Africa
- Hunting can be divided into two categories namely Biltong and Trophy hunting
- Biltong hunting attracts primarily domestic hunters, while trophy hunting attracts predominantly foreign hunters
- In 2013 the value of trophy hunting was R1.24 billion while biltong hunting contributed R6.5 billion

### Literature review



- The following socio-demographic variables

*Role of age, Language, Marital status, Qualification, Distance, Place of residence, Occupation and Income*

- The following behavioural variables

*Hunting frequency, Length of stay, Type of hunter, Travel party, Purpose of trip and the motive (reason)*

Method of research



Questionnaire

Quantitative research was conducted where the questionnaire consisted out of 4 sections:

Section A – Demographic information, Section B – Spending and species hunted, Section C – Method of hunting, Section D – Hunting experience and travel motives.

Sampling and survey

The questionnaire was developed by means of AdobeForms Central and the link was posted on the Professional Hunters Association of South Africa (PHASA) website from January to October 2013.

A non-probability sampling method was used by means of an availability sample. 147 fully completed and usable questionnaires were obtained.

Statistical analysis

Data was captured in Microsoft Excel and analysed using SPSS 22 and Eviews 8. Two analyses were performed namely a factor and regression analysis. Both stepwise forward and – backward regressions were used.

Regression analysis variables



Variable	Description
AGE	Age in years
MARRIED	Dichotomous dummy variable which takes value of 1 if respondent is married, 0 otherwise
RSA	Dichotomous dummy variable which takes value of 1 if respondent is from South Africa, 0 otherwise
EDUCATION	An ordered nominal variable ranging from 1 = no schooling to 7= post graduate qualification.
PROFESSIONAL	Dichotomous dummy variable which takes value of 1 if respondent is a professional occupation, 0 otherwise
SELF	Dichotomous dummy variable which takes value of 1 if respondent is self-employed, 0 otherwise
TRIPPED	Number of trophies hunted by the respondent
SPOUSE	Dichotomous dummy variable which takes value of 1 if respondent travels with his spouse, 0 otherwise
HUNTERS	The number of hunters in the travel party
PAY	The number of people the respondent is financially responsible for during the hunting trip
TRIPS	The number of times the hunter has hunted in South Africa this hunting season
NEETS	The number of nights the hunter spent on the specific hunting trip
OWN GUN	Dichotomous dummy variable which takes value of 1 if respondent brought his own rifle to South Africa, 0 otherwise
Species	Dichotomous dummy variables which take the value of 1 if respondent hunted this specific species during his hunting trip, 0 otherwise. The most hunted species were included as dummy variables, i.e. SPRINGBOK, KUDU, BOMPALA, BLUE WILDBEEST
Method	The respondent had to choose the preferred hunting method from a list of 7 methods. Stalking is the control group and dichotomous dummy variables were coded for the other four methods: BOWHUNTING, WAITING, VEHICLE, HIBES
Memorable experience factors	The results of the factor analysis with factor scores calculated according to the Anderson-Rubin method FACTOR1, FACTOR2, etc.

Results: Factors for memorable experience



Factor	Adventure experience	Camotrade	Well managed game	Adequate amenities	Hunters density	Feeling wounded animals
The fact that I shot game / planned to hunt	.774					
Perception that game were abundant in the area	-.500					
Number of shots taken in game	-.513					
The fact that I killed game	.830					
Quality of trophies killed during the hunt	.493					
Experiencing an African hunting safari	.447					
To have an adventure experience	.314					
Adventure and adrenaline rush hunting experience	.372					
Camotrade your experience during the hunt		.460				
Being with hunting companions		-.001				
To spend time with family and friends		.866				
To be outdoors and enjoy nature		.411				
To feel natural safety and game		-.754				
Game population size		.810				
Observing nature in the savanna			.649			
Meals and refreshments on game farm			.533			
Adequate hitchhike facilities on game farm			.911			
Controlling hunting densities				.494		
Time allocated to the other animals				.469		
The fact that a wounded animal was found					.256	
The fact that a wounded animal got away						.556
<b>Mean Values</b>	1.60	1.22	4.126	4.408	1.061	4.200
<b>Standard Alpha</b>	0.818	0.877	0.82	0.819	0.792	0.621

Results: Regression analysis



Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	452.3300	153.5925	2.945001	0.0039
RSA	-192.6086	67.28372	-2.862633	0.0050
EDU	-69.08606	37.18066	-1.858118	0.0659
FACTOR1	63.46167	41.14763	1.542292	0.1259
SPRINGBOK	-113.1449	75.26078	-1.503371	0.1356
HUNTERS	-6.217244	4.689889	-1.325670	0.1877
SPOUSE	156.0003	72.22952	2.159786	0.0330
KUDU	108.3234	66.20601	1.636156	0.1047
FACTOR7	-53.79054	28.06841	-1.916409	0.0579
BOWHUNT	-238.4938	130.8013	-1.834549	0.0693
AGE	2.491112	2.401144	1.037469	0.3018
VEHICLE	-89.07751	82.03147	-1.085894	0.2799
FACTOR6	30.12878	20.15654	1.494740	0.1379
FACTOR3	-25.05662	35.45305	-0.706755	0.4812

R-squared 0.194159 Alkale info criterion 14.66811  
 Adjusted R-squared 0.098049 Schwarz criterion 14.98820  
 F-statistic 2.020180 Wald F-statistic 8.540383  
 Prob(F <= statistic) 0.025401 Prob(Wald F <= statistic) 0.000000

## Findings and implications



- First finding: seven interesting factors contributing to a memorable experience of trophy hunters. Those factors that are under the direct control of the game farmer include *well managed game, hunters density* and *adequate amenities*. The other factors *finding wounded animals, camaraderie, adventure experience* and *the hunt* have more to do with the hunter.
- Second finding: more behavioural variables influences spending compared to socio-demographic variables. Three behavioural variables namely *spouse, wounded animals* and *bow hunting* were identified.

## Conclusions



- This research confirmed two determinants previously found namely qualification and education. Three new determinants of spending were identified by this research namely *bow hunting, hunting with spouse* and factor 7 (*finding wounded animals*).
- The use of factors contributing to a memorable hunting experience in the analysis where four of the seven factors showed some level of influence on spending.

THANK YOU  
ANY QUESTIONS?



Remember to save the Rhino

Contact us:

- [Melville.Saayman@nwu.ac.za](mailto:Melville.Saayman@nwu.ac.za)
- [Peet.VanDerMerwe@nwu.ac.za](mailto:Peet.VanDerMerwe@nwu.ac.za)

Visit us:

- [www.nwu.ac.za/trees](http://www.nwu.ac.za/trees)

