Ipsos Poll Conducted for Reuters

Black Friday Shopping 12.02.2013

These are findings from a Ipsos polls conducted for Thomson Reuters from Nov. 22-25, 2012 and Nov. 28-Dec. 2, 2013. For the surveys, samples of 1,378 and 1,393 Americans ages 18+ was interviewed online, respectively, including 404 and 303 Black Friday shoppers, respectively. The precision of the Reuters/Ipsos online polls is measured using a credibility interval. In this case, the polls have credibility intervals of plus or minus 3.0 and 3.0 percentage points for all respondents, respectively , and plus or minus 5.6 and 6.4 percentage points for Black Friday shoppers, respectively. For more information about credibility intervals, please see the appendix.

The data were weighted to the U.S. current population data by gender, age, education, and ethnicity. Statistical margins of error are not applicable to online polls. All sample surveys and polls may be subject to other sources of error, including, but not limited to coverage error and measurement error. Figures marked by an asterisk (*) indicate a percentage value of greater than zero but less than one half of one per cent. Where figures do not sum to 100, this is due to the effects of rounding.

BLACK FRIDAY

Q1. Have you or anyone in your household been shopping since Black Friday sales began? That is, have you shopped in stores that opened on Thanksgiving Day itself, or since midnight on Thanksgiving Day ('Black Friday')?

YES, I shopped on Thanksgiving Day	22%
YES, I have shopped since midnight on Thanksgiving Day (since 'Black Friday')	19%
No	65%

Q2. On Thanksgiving Day, did you shop… (Select all that apply) *(Asked of all respondents; n=1,378 in 2012; n=1,393 in 2013)*

	2012	2013
In a store	18%	23%
Online or on a mobile device	16%	14%
Neither	70%	71%

Q3. Was this the first time you shopped in-store on Thanksgiving Day? *(Asked of those who shopped in-store on Thanksgiving, n=230 in 2012; n=246 in 2013)*

	2012	2013
Yes	30%	42%
No	70%	58%

Q4. Did you shop on Black Friday this year (midnight on Thanksgiving through the following day, Friday)? *(Asked of all respondents; n=1,378 in 2012; n=1,393 in 2013)*

	2012	2013
Yes	29%	25%
No	71%	75%

Q5. How much of your holiday shopping did you complete on Black Friday? *(Asked of Black Friday shoppers, n=404 in 2012; n=303 in 2013)*

	2012	2013
None	11%	8%
Less than a quarter	48%	46%
About half	22%	23%
More than three-quarters	10%	11%
All of it	5%	8%
Unsure	3%	3%

Q6. Where did you shop on Black Friday? (Select all that apply) *(Asked of Black Friday shoppers, n=404 in 2012; n=303 in 2013)*

	2012	2013
Department store	42%	45%
Electronics store	30%	38%
Apparel store	26%	29%
Discount store	42%	27%
Toy Store	9%	26%
Warehouse club	8%	12%
Jewelry stores	5%	5%
Other	21%	15%

Q7. Did you stay within your budget when shopping on Black Friday? *(Asked of Black Friday shoppers, n=404 in 2012; n=303 in 2013)*

	2012	2013
Yes, I spent less than budgeted	34%	32%
Yes, I stayed right on budget	52%	50%
No, I went a little over budget	11%	17%
No, I went a lot over budget	3%	1%

Q8. How much did you spend on Black Friday? *(Asked of Black Friday shoppers, n=404 in 2012; n=303 in 2013)*

	2012	2013
Less than $50	21%	16%
$50-$99	17%	20%
$100-$199	21%	22%
$200-$299	15%	14%
$300-$399	8%	12%
$400-$499	11%	6%
$500-$999	5%	7%
$1,000 or more	3%	3%

Q9. Compared to Black Friday last year, would you say that you… *(Asked of Black Friday shoppers, n=404 in 2012; n=303 in 2013)*

	2012	2013
Spent more this year	28%	24%
Spent less this year	28%	31%
Spent about the same	29%	27%
I didn't shop on Black Friday last year	13%	13%
Unsure	2%	5%

Q10. Did you find everything you wanted when holiday shopping on Black Friday? *(Asked of Black Friday shoppers, n=404 in 2012; n=303 in 2013)*

	2012	2013
Yes	61%	67%
No	39%	33%

Q11. Would you say that the deals and promotions offered on Black Friday were…? *(Asked of Black Friday shoppers, n=404 in 2012; n=303 in 2013)*

	2012	2013
Better than last year	33%	26%
Worse than last year	15%	19%
The same as last year	39%	37%
Not sure/Didn't shop on Black Friday last year	13%	17%

Q12. On Black Friday, how long did it take you to...? *(Asked of Black Friday shoppers, n=404 in 2012; n=303 in 2013)*

2012	Find a parking spot	Check out at the store where you did most of your shopping	Plan your shopping agenda/strategy
No time at all	27%	10%	23%
5 minutes or less	24%	12%	16%
6 - 9 minutes	12%	13%	9%
10 - 19 minutes	12%	20%	13%
20 – 29 minutes	5%	11%	6%
30 minutes – 1 hour	2%	10%	8%
Over an hour	2%	13%	12%
Not applicable	15%	10%	13%

2013	Find a parking spot	Check out at the store where you did most of your shopping	Plan your shopping agenda/strategy
No time at all	28%	13%	30%
5 minutes or less	23%	14%	18%
6 - 9 minutes	10%	14%	12%
10 - 19 minutes	15%	15%	9%
20 – 29 minutes	6%	11%	7%
30 minutes – 1 hour	2%	15%	5%
Over an hour	2%	12%	9%
Not applicable	14%	5%	9%

How to Calculate Bayesian Credibility Intervals

The calculation of credibility intervals assumes that Y has a binomial distribution conditioned on the parameter θ\, i.e., Y|θ~Bin(n,θ), where n is the size of our sample. In this setting, Y counts the number of "yes", or "1", observed in the sample, so that the sample mean ($\bar{y}$) is a natural estimate of the true population proportion θ. This model is often called the likelihood function, and it is a standard concept in both the Bayesian and the Classical framework. The Bayesian [1] statistics combines both the prior distribution and the likelihood function to create a posterior distribution. The posterior distribution represents our opinion about which are the plausible values for θ adjusted after observing the sample data. In reality, the posterior distribution is one's knowledge base updated using the latest survey information. For the prior and likelihood functions specified here, the posterior distribution is also a beta distribution (π(θ/y)~β(y+a,n-y+b)), but with updated hyper-parameters.

Our credibility interval for ϑ is based on this posterior distribution. As mentioned above, these intervals represent our belief about which are the most plausible values for ϑ given our updated knowledge base. There are different ways to calculate these intervals based on π(θ/y). Since we want only one measure of precision for all variables in the survey, analogous to what is done within the Classical framework, we will compute the largest possible credibility interval for any observed sample. The worst case occurs when we assume that a=1 and b=1 and y=$n/2$. Using a simple approximation of the posterior by the normal distribution, the 95% credibility interval is given by, approximately:

$$\bar{y} \mp \frac{1}{\sqrt{n}}$$

For this poll, the Bayesian Credibility Interval was adjusted using standard weighting design effect 1+L=1.3 to account for complex weighting[2]

Examples of credibility intervals for different base sizes are below. Ipsos does not publish data for base sizes (sample sizes) below 100.

Sample size	Credibility intervals
2,000	2.5
1,500	2.9
1,000	3.5
750	4.1
500	5.0
350	6.0
200	7.9
100	11.2

[1] *Bayesian Data Analysis, Second Edition, Andrew Gelman, John B. Carlin, Hal S. Stern, Donald B. Rubin, Chapman & Hall/CRC | ISBN: 158488388X | 2003*

[2] *Kish, L. (1992). Weighting for unequal Pi . Journal of Official, Statistics, 8, 2, 183200.*