

**ONTARIO
SUPERIOR COURT OF JUSTICE**

BETWEEN:

ONTARIO CONVENIENCE STORES ASSOCIATION

Applicant

- and -

THE CITY OF TORONTO

Respondent

EXPERT REPORT OF DR. CHUCK CHAKRAPANI

I, **CHUCK CHAKRAPANI**, resident in Toronto, Ontario, **MAKE OATH AND SAY AS FOLLOWS:**

STATUS AND QUALIFICATIONS

1. I am currently the President of Leger Analytics, a division of Leger, the largest independent Canadian marketing research company. I am also a Distinguished Visiting Professor at Ted Rogers School of Management, Ryerson University and the Chief Knowledge Officer of the Blackstone Group in Chicago.

2. In the past, I have carried out research and statistical consultancy for business corporations, marketing boards, marketing research companies and law firms through my consultancy firm, Standard Research Systems.
3. **Education.** I hold a B.A. in Psychology and Statistics from Madras University as well as both a M.A. and Ph.D. in Experimental Psychology from S.V. University. I also hold a M.Sc. Degree in Mathematical Psychology from Stirling University and completed a Post-Doctoral Fellowship at Liverpool University on Mathematical Models of Consumer Behaviour.
4. **Professional memberships.** I am a member of many professional bodies inside and outside of Canada, such as the Royal Statistical Society (UK), Market Research Society (UK), Marketing Research and Intelligence Association (Canada) and American Marketing Association (USA).
5. **Professional Fellowships.** I am a Fellow of the Royal Statistical Society (UK) and was elected as Fellow of the Marketing Research and Intelligence Association for my "*outstanding contributions to marketing research in Canada*" (from the citation for my admission to the fellowship).
6. **Professional standing.** I serve on many judging panels that offer awards to professionals in my field. For instance, I have been on the Board of Governors of the Charles Coolidge Parlin Award for over 6 years and have served as the Chairman of the David K. Hardin Award Committee for the past 9 years. From 2004 to 2006, I was a member of the panel for the Berry Award which is given to the best business book of the year. I have designed and taught courses that are required components of professional designations in marketing research in the United States (PRC) and in Canada (CMRP).
7. **Professional leadership.** I was elected National President of the Professional Marketing Research Society for the 1984-85 term, and subsequently served as its Executive Director from 1986-91. The Professional Marketing Research Society

(forerunner of the Marketing Research and Intelligence Association) is the national body of marketing research professionals, with chapters in Toronto, the Atlantic provinces, the Prairie provinces, Ottawa, the Province of Quebec and the province of British Columbia. I was the Master Editor for the largest online course in the world for marketing research, *Principles of Marketing Research* offered by the University of Georgia.

8. **Career highlights.** I have held positions in the field of marketing research and statistics both in the academic and in the private sector. From 1973 to 1976, I was Senior Research Officer at the London Business School in England. From 1976 to 1981, I was Chief Statistician at Canadian Facts, one of the largest marketing research firms in Canada. From 1981 to 1985, I was the Managing Director of Applied Marketing Statistics, a company specializing in providing statistical consultancy services in the area of marketing and research. Since 1986, I have been the President of Standard Research Systems. For three years ending in December 2005, I served as the CEO of Millward Brown Canada, one of the largest research firms in Canada whose parent company is the second largest research/communications firm in the world.
9. **Books.** I have written or co-written four university/college level texts: *Business Statistics* (with Ken Black and Ignacio Castillo, published by Wiley 2010), *Marketing Research: Methods and Canadian Practice* (with Ken Deal, published by Prentice-Hall), *Modern Marketing Research Step-by-Step* (with Ken Deal published by Pearson Education) and *Statistics in Market Research* (published by Arnold, UK), in addition to *How to Measure Service Quality and Customer Satisfaction*, and *Marketing Research: State-of-the-Art Perspectives* (both published by the American Marketing Association). I am the author and editor of a number of other books and monographs.
10. **Other publications.** I was, between 2000 and 2012, the Editor-in-Chief of *Marketing Research*, published by the American Marketing Association. I was

also the Editor-in-Chief of the *Canadian Journal of Marketing Research* published by the Professional Marketing Research Society between 1983 and 2004. I have published over 200 articles on research methodology, statistical analysis and related subjects in professional periodicals throughout the world.

11. **Seminars and courses.** Over the years, I have spoken extensively at seminars and courses and have designed and taught seminars and courses around the world including England, the United States, the Middle East, Australia, Asia and Canada. I also teach a large number of research subjects and have acted as an examiner in the course that leads to the professional designation of marketing researchers in Canada, Certified Marketing Research Professional (CMRP).
12. **Experience in legal cases.** I have experience in reviewing surveys carried out for litigation purposes. I also have experience in testifying in court regarding survey evidence. Some of the recent cases include *Masterpiece Inc. v. Alavida Lifestyle Inc.*, *Altacor Inc. v. Nutrative Pharmaceuticals Inc.*, and *A&W Food Services of Canada Inc. v. McDonald's Restaurants of Canada Ltd.*
13. **Curriculum vitae.** Attached to this Affidavit, and marked as Exhibit "B", is a copy of my curriculum vitae which sets out in greater detail my academic and professional credentials.

MANDATE

14. I was retained by Mr. Eric S. Block of McCarthy Tetrault to design, implement and review a web-based survey on the effect on customers of convenience stores of a proposed ban on plastic bags in the City of Toronto.

SUMMARY AND CONCLUSION

15. I designed and conducted a survey among 332 residents of Metro Toronto. On the basis of the survey, I conclude that while 53% of convenience store customers will be unaffected by the proposed ban on plastic shopping bags, the remaining 47% will change their shopping behaviour by buying fewer items or shopping less frequently or a combination of both.

SURVEY DESIGN

16. To understand the impact of the plastic bag ban on consumers I designed and implemented a web survey among 332 convenience store customers in the City of Toronto. The fieldwork for the survey was carried out between November 9 and 12, 2012.
17. The respondents were randomly chosen from a large online panel maintained by Leger. To qualify for inclusion in the study, a consumer had to be a City of Toronto resident, 15 years of age or older. They had to have shopped at a convenience store at least once in the past month prior to the day of the interview.
18. The respondents were presented with a standard questionnaire. Attached to this Affidavit, and marked as Exhibit "B", is a copy of the questionnaire used in the study.

QUALITY CONTROL

19. The quality of an online study depends on a number of factors. The most important of these are the quality of the panel from which the sample is drawn and whether the respondents who answered the questions are the same that we intended to contact.

20. *High quality panel.* The panel from which the sample is drawn is maintained by Leger. Leger's online panel is the largest maintained by a single organization in Canada. The core of the panel was recruited randomly, using randomly selected telephone numbers. This panel was later augmented to account for attrition and to enlarge the panel base. This procedure creates a much higher quality panel than panels that haphazardly recruit panel members, based on undefined procedures.
21. *100% validation.* A standard way of validating a survey is through callback. In callback procedures, those who have completed the survey are called back to make sure that those who answered the questions were the same individuals as the ones we intended to contact. They are also asked one or two factual questions that were in the original survey. In telephone surveys, the standard for verification is 10% callbacks. But in this study we carried out 100% verification and did not include any respondent who we could not contact for verification and those who we were not sure were the same respondents, based on their response to verification questions.
22. *Weighting.* Weighting is a statistical procedure to correct for the inevitable imbalances in the sample compared to the population. Thus we weighted our results based on age and gender, in accordance with Statistics Canada 2011 census results.

RESULTS OF THE SURVEY

23. The respondents were screened to make sure that the survey respondents are 15 years of age or older and they had visited a convenience store in the past month.
24. Those who qualified for the interview were asked "*When you visit convenience stores, do you or do you not bring reusable shopping bags with you?*" 22% of the

respondents responded that they always carried a bag. The remaining 78% said that they did not, either all the time or some of the time.

25. Those who do not always carry a bag when they go to a convenience store were further asked: *“The City of Toronto is planning to issue a ban on plastic carryout shopping bags, which will prohibit convenience stores from providing plastic bags to customers. If convenience stores in the City of Toronto are prohibited from providing customers with plastic shopping bags, will you start bringing your own shopping bags with you when you go to convenience stores or not?”* 21% of convenience store customers indicated that they would carry their own shopping bags all the time when they visit the store, if the ban goes into effect.

26. When we add the percentage of customer who currently carry a bag (22%) to the percentage of customers who would carry a bag if the a plastic bag ban came into effect (21%), it appears that the plastic bag ban will not change the behavior of 43% of convenience store customers.

27. It also means that, if the plastic bag ban goes into effect, 57% of customers will not always bring their own bags. To understand whether the plastic bag ban would have any impact on the number of items they buy or the frequency with which they would visit convenience stores, the respondents were asked the following question:

If you find yourself not carrying a shopping bag when you go to a convenience store, will you or will you not... [Questions rotated – presented in different order to different respondents.]

<i>a. Buy only the absolute minimum?</i>	<i>Yes (35%)</i>	<i>No (22%)</i>
<i>b. Buy fewer items?</i>	<i>Yes (35%)</i>	<i>No (22%)</i>
<i>c. Visit convenience stores less frequently?</i>	<i>Yes (24%)</i>	<i>No (33%)</i>
<i>d. Postpone buying to a later time?</i>	<i>Yes (30%)</i>	<i>No (28%)</i>

<i>e. Buy as much as you do now?</i>	<i>Yes (25%)</i>	<i>No (32%)</i>
<i>f. Switch to stores that have parking facilities? (such as grocery stores / big box stores)</i>	<i>Yes (21%)</i>	<i>No (36%)</i>

In addition, customers were also given an opportunity to write in what they would do to cover behaviour not listed above. About 5% of the customers wrote in, although most of what they wrote turned out to be an elaboration or variations of the themes listed above. Attached to this affidavit, marked Exhibit "C" is a list of customers' reactions.

28. However, in the above table, the same customer can take more than one action. For example, the same customer can buy fewer items and may visit convenience stores less often. To avoid double counting of respondents, we need to know how many people said they would change their behaviour because of the proposed legislation, by answering accordingly to one or more questions above. If we count only those who said "yes" to one of more of the questions in Q4a to Q4d and 4f or "no" to Q.4e, then we will get a count of customers who will be affected by the plastic bag ban. Using this analysis we found another 10% will not be affected by the ban while the remaining 47% will change their behaviour by buying less or visiting convenience stores less frequently.
29. Taking into account all of the above figures, I estimate that 47% of consumers will behave in a way that will adversely affect convenience store sales. This figure is comprised of those who do not already carry reusable shopping bags, will do not so when convenience stores stop providing them with shopping bags and will either buy less or make less frequent visits to convenience store if the plastic bag ban is introduced.
30. The above result is statistically reliable and carries an error margin of + or - 5.4%, 19 times out of 20. In other words, even if we attribute 5.4% of the results as due to sampling error, we would nevertheless be able to confidently say that

more than 41% of convenience shoppers will change their convenience shopping behaviour in such a way as to affect the convenience shops negatively in terms of sales.

CONCLUSION

31. The survey shows that the proposed ban on plastic bags will negatively affect the purchasing behaviour of nearly one-half of all convenience store customers.

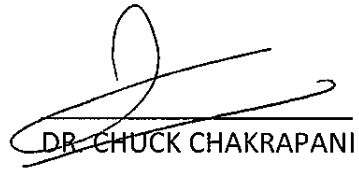
32. We estimate 53% of convenience store customers will not be affected by the proposed ban. The 53% who will not be affected by the ban can be broken down as follows:

Those who always carry a bag with them to a convenience store	22%
Those who will carry a bag if legislation is introduced	21%
Those who will continue to buy as before, despite the ban	10%
Total	53%

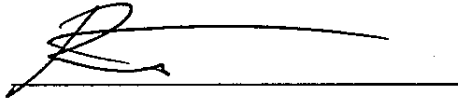
33. This means that the remaining 47% of convenience store customers are likely to do one or more of the following if the legislation is introduced: buy fewer items or the absolute minimum, visit convenience stores less frequently, postpone purchases, switch stores or not buy as much as they do now.

34. The above result is statistically reliable and carries an error margin of + or - 5.4%, 19 times out of 20.

SWORN BEFORE ME
In the City of Toronto
In the Province of Ontario
This 20th day of November 2012



DR. CHUCK CHAKRAPANI



A Commissioner of Oaths /
Notary Public

In and for the Province of Ontario

TAB B

EXHIBIT "B" THE QUESTIONNAIRE

This is Exhibit B referred to in the affidavit of Dr. Chuck Chokrayan

Q-IT For (MW13305_003A)

before me, this 20 day of November 2012


A COMMISSIONER FOR TAKING AFFIDAVITS

Language = EN
Type = Active questions only
Datetime = 11/12/2012 2:50:36 PM
Questions = ALL
Frequencies = , On completes only
Structure = Included

INT01. 7/51 Min=1Max=1 L=2

"I agree to answer the following survey questions truthfully and thoughtfully."

Yes 01
No NE =>/REDI

PROV. 8/51 Min=1Max=1 L=2

In which province or territory do you live ?

- Alberta AB
- British Columbia BC
- Prince Edward Island PE
- Manitoba MB
- New Brunswick NB
- Nova Scotia NS
- Nunavut NU
- Ontario ON
- Quebec QC
- Saskatchewan SK
- Newfoundland NF
- Northwest Territories NT
- Yukon YT

INT52. 9/51 Min=1Max=1 L=2

If PROV=ON
GO TO +1

Please click on the following arrow to receive your reward(s).

NE - PROV N2ID =>/REDI

TORON. 10/51 Min=1Max=1 L=1

Do you currently live in the city of Toronto?

Yes	1
No	2

INT56. 11/51 **Min=1Max=1 L=2**
If TORON=1
GO TO +1

Please click on the following arrow to receive your reward(s).

NE - PROV N6ID =>/REDI

COD1. 12/51 Please indicate the first 3 characters of your postal code. **Min=1Max=1 L=1**

A	A
B	B
C	C
D	DI
E	E
F	FI
G	G
H	H
I	II
J	J
K	K
L	L
M	M
N	N
O	OI
P	P
Q	QI
R	R
S	S
T	T
U	UI
V	V
W	WI
X	X
Y	Y
Z	ZI
9	9

COD2. 13/51 **Min=1Max=1 L=1**

0	0
1	1

2
3
4
5
6
7
8
9

2
3
4
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7
8
9

COD3. 14/51

Min=1Max=1 L=1

A
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N
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OI
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UI
V
W
X
Y
Z
9

INT51. 15/51

Min=1Max=1 L=2

If COD1=M ET COD2=1,2,3,4,5,6,7,8,9
GO TO +1

Please click on the following arrow to receive your reward(s).

NE - Postal codes does not begin with M

N1ID =>/REDI

AGE. 16/51

Min=1Max=1 L=2

How old are you?

Under 15 years of age	00
Between 15 and 17	01
Between 18 and 24	02
Between 25 and 34	03
Between 35 and 44	04
Between 45 and 54	05
Between 55 and 64	06
Between 65 and 74	07
75 years of age or older	08
I prefer not to answer	99

INT55. 17/51 Min=1Max=1 L=2

If AGE=00,99

ELSE +1

Please click on the following arrow to receive your reward(s).

NE - AGE

N5ID ==>/REDI

SEX. 18/51 Min=1Max=1 L=1

Please indicate your gender:

Male	1
Female	2

ENFAN. 19/51 Min=1Max=1 L=1

Are there any children who are UNDER 18 YEARS OF AGE living at home? (IF SO):
Are any of them 12 YEARS OLD AND OLDER or LESS THAN 12 years old?

Yes: 12 years of age and OLDER ONLY	1
Yes: 12 years of age and older AND younger than 12 years old	2
Yes: YOUNGER than 12 years old ONLY	3
No children under 18 years old at all in the household	4
I prefer not to answer	9

FNAME. 20/51 Min=0Max=1 L=60

Thank you for your participation. This survey should take about 5 minutes to complete. There are no right or wrong answers. We are genuinely interested in your thoughts and opinions. Your opinions will provide input to important decisions, and everything you write will be given consideration. All information you provide is kept

confidential and is used for research purposes. In the event we need to verify any of your survey information, please provide your first name, phone number, and best time of day to contact you. The information will be used for no other purpose except to verify your participation.

First name:

PHONE. 21/51 Min=0Max=1 L=12

MASK : 999-999-9999

Phone:

BEST. 22/51 Min=0Max=1 L=1

Best time of day to be contacted:

Day	1
Evening	2

REFUS. 23/51 Multiple Min=0Max=2 L=1

	\$
I do not wish to provide this information (click here only if you have not given the information above)	9

CHECK. 24/51 Min=1Max=1 L=1

If IF((FNAME==0 AND PHONE==0 AND BEST==0 AND REFUS==00),1,IF((REFUS=9),2,IF((NOT FNAME==0 AND NOT PHONE==0 AND NOT BEST==0),2,3)))
GO TO *

Your answer is incomplete	1
	2
Your answer is incomplete	3

NAVIG. 25/51 Min=1Max=1 L=1

If CHECK=1,3
GO TO FNAME
ELSE +1

INT53. 26/51 **Min=1Max=1 L=2**
If REFUS=9
ELSE +1

Please click on the following arrow to receive your reward(s).

NE - Refused to provide info N3ID =>/REDI

Q1A. 27/51 **Min=1Max=1 L=1**

In the past month have you or have you not visited any of the following?

A supermarket

Yes 1
No 2

Q1B. 28/51 **Min=1Max=1 L=1**

In the past month have you or have you not visited any of the following?

A department store

Yes 1
No 2

Q1C. 29/51 **Min=1Max=1 L=1**

In the past month have you or have you not visited any of the following?

A convenience store

Yes 1
No 2

Q1D. 30/51 **Min=1Max=1 L=1**

In the past month have you or have you not visited any of the following?

A movie theatre

Yes 1
No 2

Q1E. 31/51 **Min=1Max=1 L=1**

In the past month have you or have you not visited any of the following?

A food court

Yes	1
No	2

INT54. 32/51 Min=1Max=1 L=2

If Q1C=2
ELSE +1

Please click on the following arrow to receive your reward(s).

NE - Q1 N4ID =>/REDI

Q2. 33/51 Min=1Max=1 L=1

When you visit convenience stores, do you or do you not bring reusable shopping bags with you?

Yes, I always do	1	=>+10
Yes, but not always	2	
No	3	

Q3. 34/51 Min=1Max=1 L=1

The City of Toronto is planning to issue a ban on plastic carryout shopping bags, which will prohibit convenience stores from providing plastic bags to customers. If convenience stores in the City of Toronto are prohibited from providing customers with plastic shopping bags, **will you start bringing your own shopping bags with you when you go to convenience stores or not?**

Yes, I always will	1	=>+9
Yes, but not always	2	
No	3	

Q4A. 35/51 Min=1Max=1 L=1

If you find yourself not carrying a shopping bag when you go to a convenience store, will you or will you not...

Buy only the absolute minimum?

Yes	1
No	2

Q4B. 36/51

Min=1Max=1 L=1

If you find yourself not carrying a shopping bag when you go to a convenience store, will you or will you not...

Buy fewer items?

Yes	1
No	2

Q4C. 37/51

Min=1Max=1 L=1

If you find yourself not carrying a shopping bag when you go to a convenience store, will you or will you not...

Visit convenience stores less frequently?

Yes	1
No	2

Q4D. 38/51

Min=1Max=1 L=1

If you find yourself not carrying a shopping bag when you go to a convenience store, will you or will you not...

Postpone buying to a later time?

Yes	1
No	2

Q4E. 39/51

Min=1Max=1 L=1

If you find yourself not carrying a shopping bag when you go to a convenience store, will you or will you not...

Buy as much as you do now?

Yes	1
No	2

Q4F. 40/51

Min=1Max=1 L=1

If you find yourself not carrying a shopping bag when you go to a convenience store, will you or will you not...

Switch to stores that have parking facilities? (such as grocery stores / big box stores)

Yes 1
No 2

Q4G. 41/51 Min=1Max=1 L=1

If you find yourself not carrying a shopping bag when you go to a convenience store, will you or will you not...

Other (please specify)

Yes 1
No 2

Q4OP. 42/51 Open Min=1Max=1 L=2

If NOT Q4G=1
GO TO +1

You answered "Yes" to "Other" in previous question. Please specify:

96IDO

T1. 45/51 Min=1Max=1 L=4

If IF((T1>0),T1,\$T)
GO TO *

length

INTQT. 46/51 Min=1Max=1 L=2

If 1
GO TO +1

Please click on the following arrow to receive your reward(s).

QUOTA FULL QTID =>/REDIQ

INT99. 47/51 Min=1Max=1 L=2

Please click on the following arrow to receive your reward(s).

COMPLETED COID =>/REDIR

INT. 48/51 Min=1Max=1 L=2

Are you sure that you want to quit? If you would like to interrupt the survey

and complete it later, click on the "Submit" button. You will be able to continue with your survey at any time by using the link provided in our original invitation. If you do not want to quit now, please use the "Back" button to return to the survey to complete it.

Completed	CON
Incomplete	INID
Quit	W0N
(INT01) Yes	01N
(INT01) No	NEN
(INT52) NE - PROV	N2N
(INT56) NE - PROV	N6N
(INT51) NE - Postal codes does not begin with M	N1N
(INT55) NE - AGE	N5N
(INT53) NE - Refused to provide info	N3N
(INT54) NE - Q1	N4N
(INTQT) QUOTA FULL	QTN

REDIR.	Min=	Max=	L=
49/51	1	1	1
URL=Https://Legerweb.com/ES.asp?lmid=&CodeSurvey=&l=EN&IdCamp=&Flag			
=C			

REDI.	Min=	Max=	L=
50/51	1	1	1
URL=Https://Legerweb.com/ES.asp?lmid=&CodeSurvey=&l=EN&IdCamp=&Flag			
=S			

REDIQ.	Min=	Max=	L=
51/51	1	1	1
URL=Https://Legerweb.com/ES.asp?lmid=&CodeSurvey=&l=EN&IdCamp=&Flag			
=Q			

Q-It, Version 2.0