less consideration is given to environmental friendly packing by respondents; 15.5% of the respondents replied lowering price and better quality of bottled water could encourage them to buy it; 38.7% (significant portion) of the respondents replied any change in the three attributes together(lowering price, environmentally friendly packing and better quality) could be the reason for buying of bottled water and finally 28.2% of the respondents replied lowering price alone could encourage them to buy bottled water made and availed in Addis Ababa. This implies that any improvement in the current pricing strategy of the bottled water in Addis Ababa through product quality including design for environmentally friendly packing may boost the sale of bottled water in Addis Ababa.

Table 4.8: Bottled water dimensions

	N	*Mean*	*Std. Deviation*
Bottled water causes great environmental problem--the empty bottles are wasted	142	3.4437	1.21763
Quality of bottled water may not be better than tap water	142	2.4366	1.03461
Tap water in Ethiopia is safe enough to drink directly	142	2.3099	.92394
Bottled water is being commercialized	142	3.4577	1.17070
Bottled water is becoming more popular	142	3.4437	1.10142
It is inconvenient to prepare my own bottle of water	142	3.2958	1.15953
When I buy bottled water, I won't consider the effect on environment	142	3.0704	1.22415

Source: Own survey, 2014

In table 4.8, respondents were asked to rate their degree of agreement on the five point scale for 1 being totally disagree; 2 = disagree; 3 = neutral; 4 = agree; 5 = totally agree on the following six variable. Their responses, therefore, are stated as follows

Regarding the environmental problems the water bottle is said to create respondents rated it at 3.4 on average indicating that they are fairly aware of the issues pertaining to the possible negative impacts of the industry. This may tell that the reason why these respondents, as indicated earlier, do not supply their empty water bottles to recyclers is due to a reason other than awareness. The other question in this rating scale relates to whether bottled waters were any better than tap water. And the responses average to 2.3. Since the question is framed in a negative form the average of 2.3 can be regarded as a little above average implying that consumers think bottled water is still better than a pure tap water. So we can infer from here than consumers lodge much more value to bottled water than tap water.

Respondents rated the proposition that tap water in Ethiopia is safe enough for drinking. The rating in this regard amounts only to 2.3 implying that people do not have confidence on the purity of tap water in Ethiopia. This very perception of the people on tap water can be regarded as a very good opportunity for bottled water producers since it can very well be argued that the Ethiopian populous will heavily relying on bottled water for drinking. This will be a reality with the economy growing fast adding up to the purchasing power of people and their increasing consciousness for health and safety.

In addition to the above the propositions read, bottled water is being commercialized; bottled water is becoming more popular and it is inconvenient to prepare my own bottle of water, scored positive response from the respondents of Addis Ababa with a mean score of 3.46, 3.44, 3.3 with standard deviation of 1.2, 1.1and 1.2 respectively. Such ratings obviously are in favor of expanding and developing the bottled water industry which has been proposed by this researcher at the very outset.

5. Conclusions

Based on the respondents opinion whether bottled water commercialization in Addis Ababa the following conclusions are drawn.

- Bottled water pricing in Addis Ababa is overpriced like any other commodity in Addis Ababa, but users are willing and to prefer to pay and use bottled water at home, work and hotel services.
- Packing, environmentally friendliness, taste and convenience while handling and using of bottled water products in Addis Ababa are above the expectations of bottled water users and can be concluded as success factors for the commercialization of bottled water in Addis Ababa.
- Respondents' bottled water user's favorite brand is 'Yes' brand.
- Significant number of consumers of bottled water in Addis Ababa prefers to use bottled water for drinking at home, work or hotel places as compared to other forms of tap water.
- Majority of bottled water users have daily frequency of using it at home, work or hotels.
- Consumers' justification for preference of bottled water use at home, work or hotel is cleaner, cold and fashionable.
- The disposal of empty bottles by bottled water users anywhere on the streets of the city is environmentally unfriendly as all of the packaging of the bottled water is plastic.
- Respondents justified continuing to buy bottled water with lowered price, better quality, and more environments friendly packing.

Based on these empirical survey, of bottled water users in Addis Ababa, bottled water sale like any type of product is a successful business venture private firms are maximizing profit out of it which can be extended to international marketing based on the available international marketing strategies of standardization, adaptation or combination of the two, as international water quality standards are met like any product traded in the international market.

6. Implication on Reverse Logistics of Bottled Water Manufacturing in Ethiopia

The trend in the changing life style of the Ethiopian people in drinking bottled water at home, work place, recreation and travel in and outside the country provided another opportunity to sale bottled water as a product in the local market and sought its potential sale in the international market as far as international water quality standards are met. However, regardless of increasing trend in the distribution logistics of bottled water to the Ethiopian domestic market and the commencement of export of plastic packaged water to international market by few branded bottled water companies raised the issue of environmental regulation as a result of the existing plastic packaged branded water products are unfriendly to the environment. In the absence of green packaging of water products for commercial use in Ethiopia, it demands for reverse logistics for recycling of plastic packages for water use. Unlike soft drink companies which voluntarily apply reverse logistics for re use of bottle for their product packaging, water bottling companies in Ethiopia are not required by law to re use/recycle plastic packages for water regardless of their negative impact on the environment as plastics take thousands of years to decompose. The government should also take in to account, the exponential increase in the production and sales volume of branded bottle water products availability in supermarkets, hotels, workplaces, household residents and the like with increased availability of plastic packages for bottled water after use in open space and dustbins. Therefore, it is not uncommon to observe in the streets of Addis Ababa and regional towns to find plastic packages of water dumped here and there as a result of increased use by residents at home, workplace or recreation centers in daily basis. Even though, the city government of Addis Ababa organized informal sectors at micro enterprise level to play the role of collectors to remove waste from the city basis in the areas of household residents, recreation centers and streets of Addis Ababa as their regular day to day economic activity creating significant number of employment in the city, the Government may have made a trade off for not putting a stringent environmental regulation on the reverse logistics of plastic packages of bottled water for recycling or reuse. Because, if significant number of employment is created as a result of collecting plastic bottles for water products, it deemed rational for the government to maintain the statuesque and discouraged to put any environmental policy measure that has an outcome of reduction in employment of the already created job as the prevalence of high unemployment rate in the City of Addis Ababa. Besides, individual households pay for removing these plastic packages for bottled water and other solid wastes from their areas to the collectors. Based on empirical evidences collected from the respondents on the current trend in commercializing of bottled water in national and international market, manufacturers of bottled water in Ethiopia are tapping the opportunities in the increasing consumers demand and use style for bottled water at workplace, meeting, home, and recreation and hotel services centers without due consideration of wider impact on environment of the plastic packages of water use. Therefore, the study recommends the application of reveres logistics by bottled water manufacturing companies in Ethiopia for recycling plastic packages of bottled water that should be enforced legally for environmental sustainability.

References

[1] http://farmguiden.com/delivery-of-bottled-water,accessed,15-08-2014.
[2] www.ewg.org/research,access date, August31, 2014.
[3] Adane L. and Muleta D., Survey on the usage of plastic bags, their disposal and adverse impacts on environment: A case study in Jimma City, Southwestern Ethiopia, Journal of Toxicology and Environmental Health Sciences Vol. 3(8) pp. 234-248, August 2011
[4] Prahalad, C. and Hamel, G. (1990), The core competence of the corporation", Harvard Business Review, Vol. 68 No. 3, pp. 79-91.
[5] _____ (1990), The core competence of the corporation", Harvard Business Review, Vol. 68 No. 3, pp. 79-91.
[6] Eisenhardt, K.M. and Martin, J.A. (2000), "Dynamic capabilities: what are they?" Strategic Management Journal, Vol. 21 Nos 10/11, pp. 1105-21.
[7] Halldorsson Arni and Herbert Kotzab, Juliana H. Mikkola and Tage Skjøtt-Larsen(2007), Complementary theories to supply chain, Management, Supply Chain Management: An International Journal 12/4 , 284–296, Emerald Group Publishing Limited
[8] Sileshi et al., (2010), Water Resources and Irrigation Development in Ethiopia, International Water Management Institute.
[9] Correa Henrique Luiz and Xavier Lucia Helena (2013). Concepts, design and implementation of Reverse Logistics Systems for sustainable supply chains in Brazil, Journal of Operations and Supply Chain Management Volume 6 Number 1 pp 1 – 25

Appendix A

Bottled Water Users' Questionnaire Survey ("Is drinking bottled water a new trend in Addis Ababa?")

Code No: _____

Dear Respondents!
This questionnaire is intended to gather facts with regard to water resource management in Ethiopia in general and institutional capabilities build so far in particular (if available) for Ethiopian sustainable development. Your genuine response to the scientific inquiry will help to draw valid conclusions that will in turn help policy makers for their water resources related decision making. Therefore, the researcher kindly requests your response's impartiality and kind cooperation to

respond to the questions fully. I will assure you that individual responses will not be divulged by name and survey responses will be reported as aggregate or mean**.**

Thank you in advance for your cooperation!

Questions

I am going to ask you some questions with regard to commercial elements of bottled water marketed in Addis Ababa. Therefore, you are kindly requested to rate the bottled water marketed in Addis Ababa, based on the following items from 1 very poor; 2 poor,3 neutral, 4 good to 5 very good

Sr. No.	Description/Item	1	2	3	4	5
1.	Price					
2.	Cleanliness					
3.	Packing					
4.	Environmental friendliness					
5.	Taste					
6.	Convenience					

a. Which brand of bottled water do you prefer
b. Yes
c. Origin
d. Aqua Safe
e. Aqua Addis
f. Abyssinia Spring
g. Other, please specify

7. What type of water do you prefer to drink when you are at home?
a. Boiled tape water
b. Tap water
c. Filtered tap water
d. Bottled water
e. Other
f. What type of water do you prefer to drink when you are on the street/work?

8. Boiled tape water
a. Tap water
b. Filtered water
c. Bottled water
d. Other

9. How often do you purchase bottled water?
a. Never
b. 0-1 time/week
c. 2-3times/week
d. 4-5times/week
e. 6 and >6 times a week

10. Why do you purchase bottled water? (You can choose more than one answer)
a. It is inconvenient to prepare my own bottle of water ,I want to keep the empty bottle after drinking the water
b. It is inconvenient to prepare my own bottle of water ,Bottled water is cold
c. Bottled water is cleaner
d. Bottled water is cleaner ,Bottled water is cold ,Bottled water is fashionable
e. Bottled water tastes good
f. Bottled water is quality
g. Other reason

11. After drinking bottled water, how would you deal with the empty bottle for most of the time?
a. Put in rubbish bin b. Reuse
b. Recycled d. Dispose any where
c. Other, please specify
d. Which of the following changes on bottled water would encourage you to purchase bottled water? (You can choose more than one answer)

e. Lowering the price ,More attractive packaging
f. Lowering the price ,using a more environmental friendly packing
g. Lowering the price, better quality
h. Lowering the price ,Better quality ,using a more environmental friendly packing
i. Lowering the price
j. Lowering the price ,More attractive packaging ,Better quality ,using a more environmental friendly packing

II. Now you will be asked to rate your degree of agreement on the five point scale for 1 being totally disagree; 2=disagree; 3=neutral, 4=agree; 5=Totally agree on the following issues.

Sr. No.	Description/Item	1	2	3	4	5
12.	Bottled water causes great environmental problem--the empty bottles are wasted					
13.	Quality of bottled water may not be better than tap water					
14.	Tap water in Ethiopia is safe enough to be drink directly					
15.	Bottled water is being commercialized					
16.	Bottled water is becoming more popular					
19	It is inconvenient to prepare my own bottle of water					
20	When I buy bottled water, I won't consider the effect on environment					