Comparison of select financial parameters of Ethiopian consumer goods supply chains

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Abstract

Purpose – The purpose of this paper is to set the benchmark for finished goods consumer supply chain companies in terms of financial metrics driven from best performing supply chains in the world.

Design/methodology/approach – The paper used a financial data collected from 25 large industries in Ethiopia and 25 companies from the best performing supply chains in the world as ranked by Gartner® to identify the gaps in financial metrics. This method helps in setting benchmarks for the case companies.

Findings – The result shows that the Ethiopian supply chains are performing well under revenue growth and insufficient under revenue per employee metrics. The result shows us these supply chains are accumulating inventories and are also seen inefficient and ineffective in their performances.

Research limitations/implications – Even though the research is only one of the few on case considered, it is not without limitation. The strategies to narrow the performance gaps for the respective case companies are not articulated.

Practical implications – It is an ideal for the managers in the case companies to look into their performance gaps and take the necessary actions to stay alive in this fierce competition era. Hence, the paper shows insights to the improvement of the supply chain performances.

Originality/value – The research can be considered the only one of the few in a case country. It is also the first of the type in covering large fast moving consumer goods companies' metrics at large aligning with the best practicing supply chains in the world within the same industry vertical.

Keywords Supply chain, Supply chain management, Supply chain metrics, Financial metrics, FMCGs, Consumer goods supply chains

Paper type Research paper

1. Introduction

A performance measurement is a metric used to quantify the efficiency and/or effectiveness of an action (Gunasekaran *et al.*, 2001). In today's competitive age, it is proven that many companies have not succeeded in maximizing their supply chain's potential because they have often failed to develop the performance measures needed to fully integrate their supply chain to maximize effectiveness and efficiency (Gunasekaran *et al.*, 2004). The main problems in performance measurements and metrics are incompleteness and inconsistencies, failing to represent a set of financial and non-financial measures in a balanced framework as some concentrating on financials, others concentrating on operational measures, having a large number of metrics which makes it difficult to identify the critical few among trivial many, failing to connect the strategy and the measurement, having a biased focus on financial metrics and being too much inward looking (Gunasekaran *et al.*, 2004; Hervani *et al.*, 2005; Gunasekaran and Kobu, 2007). Besides, the right choice of performance metrics and measures is critical to the success and competitiveness of the firms in the era of globalization (Bhagwat and Sharma, 2007b).

Financial metrics are more likely to reflect the assessment of a firm by factors outside of the firm's boundaries. These measures would include conventional indicators of business performance, such as market share, return on asset (RQA) and sales growth (Chen and Paulraj, 2004). While these measures are less under the direct control of manufacturing and logistics functions within a firm, it is important to consider whether they are affected by the relationships between supply chain structure and logistics implied by our framework.

Despite its well-recognized importance, research on supply chain performance measures is still in its infancy. Most studies on supply chain performance measures are based on case studies of companies in Western or highly developed countries (e.g. the USA, Canada, Europe or Japan) and are highly descriptive. While these studies help us understand the concept of supply chain performance measures, there remains a need for large-scale empirical testing and validation of the conceptual frameworks employed by various researchers. Furthermore, most studies on supply chain performance measures are based on observations from companies in the USA or Europe. Very few studies have examined supply chain performance measures in emerging economies and cultural settings other than North America and Europe. However, the supply chains of BRICS (Brazil, Russia, India, China and South Africa) countries gained some momentum from literature even though it is on an infant stage. No single paper in a reputed journals and white papers has revealed the SC metrics for Ethiopian manufacturing supply chains.

Ethiopia, one of the developing nations in East Africa, is now receiving attention from multi-national corporations and transnational corporations who are global supply chain leaders. Currently, Ethiopia has attracted foreign direct investments mainly from European countries, China, India, USA and Egypt. Hence, it is imperative to study supply chain metrics in general and financial metrics in particular for the proper functioning and performance of individual companies toward common goal of satisfying customers with minimum cost. Consumer goods have relatively low profit margin so that an average consumer can purchase the goods. This typical affinity towards high volume purchases is accompanied with a substantial cumulative profit. Because consumer goods are frequently manufactured and sold, a clear track of their respective supply chain performance is highly indispensable. Since consumer goods are a broader category, we will deal with fast moving consumer goods (FMCGs) that are consumed by customers on daily basis. Characteristics of this industry include low value, low-involvement goods, impulsive customer purchases, short usage cycles and high repurchasing need (Diehl and Spinler, 2013).

Products such as processed foods, personal cares, soft drinks, etc. can be regarded as FMCGs. Looking only into accounting measures such as net income and revenue do not foresight the future progress of the supply chains. Hence, it is imperative to analyze the financial metrics to check and balance the well-being of the supply chain. Since companies' size and efficiency differ, it is advisable to compare those using financial metrics in terms of ratios. Based on this we identified financial measures in the form of ratios such as revenue growth, profit margin, operating margin, ROAs and revenue per employee to see how the company is doing efficiently and effectively in the supply chain and competitors perspectives and we believe that this ratio can capture unbiased performances of the supply chains within the same industrial category. The paper is expected to answer the following research questions:

RQ1. What are the common unbiased financial measures in terms of ratios to measure consumer goods companies/supply chains?

RQ2. Who are the top performers supply chains in the world in the consumer goods?

RQ3. Who are the top performers supply chains in the Ethiopia in the consumer goods?

RQ4. What are the best practices/benchmarks supply chains for the world and Ethiopia with respect to ROA, revenue growth, operating margin, profit margin and revenue per employees?

RQ5. How is Ethiopian SCs compared with benchmarks using the measures mentioned in RQ4?

The rest of paper is organized as follows: Section 2 describes literature review, Section 3 explains research methodology and Section 4 contains results and discussions. Section 5 concludes and suggests future directions.

2. Review of literature
In the literature there are many attributes of performance measures identified so far. Some authors identified them as financial (Lambert and Pohlen, 2001), some other authors identified them as operational (Beamon, 1999; Lapide, 2000; Kleijnen and Smits, 2003; Neely *et al.*, 2005; Tan and Adebanjo 2011) and the remaining authors identified them as both financial and operational (Gunasekaran *et al.*, 2001, 2004; Chan, 2003; Gunasekaran and Kobu, 2007; Qi *et al.*, 2009; Akyuz and Erkan, 2010) with customer service included in operational measures. Some authors tried to come up with balanced measures between financial and non-financial of those identified measures, for example, Kaplan and Norton (1992), Brewer and Speh (2000), Papalexandris *et al.* (2004) and Bhagwat and Sharma (2007a). Besides, any focal company in a supply chain must manage a flexible mix of operational tasks and business relationships in dynamic customer and supplier environments. However, due to the complexity of the metrics, we first capture financial performances of the internal supply chains.

Suwignjo *et al.* (1998) classified performance measures, based on the survival strategy, a short term and long term performance measures. Measure which relate to short-term survival of the company usually contains aggregated financial indicators such as value-added cost and total costs, both of which are key measures, whereas performance measures which relate to the long-term survival of the company consists of performance measures which relate to customer satisfaction (market share and number of complaints), the drivers of customer satisfaction (quality, on time delivery and flexibility), and learning and growth (corporate, IT, etc.).

Brewer and Speh (2000) linked the supply chain management framework to the balanced scorecard to identify measures. They identified financial benefit metrics as profit margin by SC partner, cash-to-cash cycle time, customer growth and profitability, return on SC assets. Applying financial measures such as profitability and rate of return, Keebler (2000) used the DuPont Model to analyze financial issues in SCM and identified three ways of managing them by margin management, asset management and financial management. His studies showed that inefficiencies in the supply chain can waste up to 25 percent of the operating costs and that leading companies enjoy a 45 percent supply chain cost advantage over their median competitors.

Huang *et al.* (2005) identified financial metrics as cost of goods sold, total supply chain management cost, warranty or return processing costs and value-added employee productivity. Hendricks and Singhal (2005) used a sample of 884 glitches announced by publicly traded firms and tested them against a sample of control firms of similar size and industries empirically documents the association between supply chain glitches and operating performance at macro level. On average, the glitches lead to 6.92 percent lower sales growth, 10.66 percent higher growth in costs and 13.88 percent higher growth in inventories. The main financial measures used here are operating income, return on sales (ROSs), ROAs and inventories.

According to Shepherd and Gunter (2006) financial metrics include sales, profit, return on investment (ROI), net profit vs productivity ratio, total SCM costs, cost of goods sold, asset turns, etc. Financial metrics are identified as ROA, ROIs, used to measure SC performance (Ramaa *et al.,* 2009) and this idea is also supported by Stewart (1995), Gunasekaran *et al.* (2001), Kennerley and Neely (2002) in which financial measures are set clearly.

Thakkar *et al.* (2009) also classify financial metrics as profit margins, pre-tax ROAs, after tax ROI, ROI, ROAs, total supply chain cost, growth in market share, return on capital

employed, improved cash flow and warranty or returns processing cost. Those financial metrics such as ROI, ROS, market share, growth in ROI, growth in ROSs and growth in market share are also identified and verified by Qi *et al.* (2009). These lists are also further validated and dictated by Flynn *et al.* (2010) in addition to growth in sales and growth in profit. More specifically Wagner *et al.* (2012) used ROA to study the impact of supply chain fit on firm's financial performance using survey of 259 US and European manufacturing firms and dictate that the higher the SC fit, the higher the ROA of the firms.

Based on the literature and companies' metrics, we used the average values of each performance metrics since all companies are the leading supply chain performers. Comparing other supply chains with the best performing chain may create a lot of gap that in turn create frustration rather than improvement. Hence, the robust benchmarks are the average values of ROA, revenue growth, operating margin, profit margin and revenue per employee (human productivity). One of the main measures of productivity is revenue per employees. This productivity is attained through human capital (Kumar *et al.*, 2010). For example, experienced employees are more competent in verifying design, performing total cost analysis and resolving conflict between suppliers and customers. They also contest that human capital has a direct effect on organizational performance. According to the authors organizational performance comprises of competitive performance like meeting the preferences of customers in terms of, for example, quality, price, time and service level, reverse logistics, value network effectiveness, supply chain configuration effectiveness and business performance like profits, market share and employee development and concludes that supply chains with low human capital scores are expected to be from firms that do not invest much in employee training, and do not expect staff to be aggressive, proactive and/or innovative. This will result in low revenue per employee.

It is dictated that revenue per employee is a commonly used measure of management efficiency. Though this metric varies widely from industry to industry and company to company it nonetheless provides an interesting view into how well a company is run. It can show, for example, how you are doing against your competition while providing a simple long-term tracking metric for both public and private companies. The best run companies have high revenue per employee figures. It is also expected that smaller firms are more productive than their larger competitors. In this view, Harnish (2006) compared smaller firms to those with the Fortune 500 and found that the revenue per employee for smaller firms is as close as $100,000 and those of for Fortune 500 is $300,000. Specifically, Wal-Mart averages $170,000 revenue per employee; General Electric is standing at $436,000; Microsoft is averaging $646,000; and the oil companies are generating over $2 million (Harnish, 2006). Hence, the above literature made us interested in selecting revenue per employee measure as one of the financial and key supply chain measures.

3. Research methodology
The research method is purely a case study approach. Case study methodology is appropriate and applicable for explorative theory development (Yin, 1994; Diehl and Spinler, 2013). The financial metrics are identified from extensive literature review and companies metrics reports. To find the performance gaps, the best-in-class industries are identified and their performance measures/metrics are used as the benchmarks for the research from 2008 to 2012. These best-in-class industries are selected from Gartner®'s 2013 top 50 rankings in which the companies are rated in accordance with their performance related to the supply chain management. In total, 11 industry types are identified and the corresponding industries are grouped under each industry type. For example, best-in-class industries for consumer goods companies are identified and their performance parameters are shown in Table AII.

Since the companies are a general category, we categorized companies based on the nature of the companies, the similarities of the products produced and the competitor's

natures. The complete category is clearly shown in Table I. Accordingly, the consumer goods companies are identified as Unilever, P&G, Colgate-Palmolive and Kimberly-Clark. Some of these companies are praised by Diehl and Spinler (2013) that they are leading FMCG company – a company that is highly proficient in SC management and has received several awards for its SC performance.

Ethiopian manufacturing industries are classified as micro and small, medium and large enterprises depending up on the number of employees and capital engaged. Based on this category, if the number of employee is more than 50, the industry is categorized under large enterprise irrespective of the intensity of capital invested. Here, to compare and set benchmarks with best practice; we take consumer goods supply chains in Ethiopia, where current trends in investment are attracting large companies. But we are interested only on indigenous consumer goods manufacturing supply chains for similar pattern benchmarks. Ethiopia as one of the developing countries, lack infrastructure in all of its cities, so that the expansion of major companies is limited to the capital city, Addis Ababa and the surrounding towns within the radius of 110 km from the city. Once the target city and surrounding towns were determined, we followed Li *et al.*'s (2005) suggestion by focusing on those manufacturing firms with more than 100 employees because the manufacturers with less than 100 employees seldom engage in sophisticated supply chain management. Based on this suggestion, several companies come into picture.

Hence, we take only large industries because Li *et al.*'s (2005) suggestion regarding number of employees convinced us to do so. Basically there are 1,733 establishments of small, medium and large manufacturing enterprises in Ethiopia in 2012. From these establishments about 223 are large manufacturing companies with more than 50 employees found in Addis Ababa, capital city. Most of the large industries are concentrated in the capital city Addis Ababa and surroundings. Hence, this study focuses on large industries found around Addis Ababa. We feel comfortable with this assumption that those around in the city can represent those of large enterprises. Based on this assumption 155 companies have more than 100 employees and are selected as an area of research. But, since our focus is on those of consumer product supply chain, 52 consumer products' companies come into focus. To further screen the problem, we take those FMCG companies' supply chain for this particular study. Using this assumption, 36 best performing consumer goods supply chains are selected based on their net income, number of employees and capital. Finally due to some difficulties such as financial securities, bureaucracies and inefficient data handling in collecting data from some industries, we collected complete performance data for 25 companies. The complete data for the 25 industries is summarized and shown in Table II.

To apply on the real scenario on Ethiopian consumer goods supply chains, appropriate data are collected. The main source of data is secondary. The secondary sources of data that the researcher used are different companies' manuals and annual reports, available organizational chart, brochures, magazines and electronic retrievals. We used case study approach research because of the justification given by Yin (1994) and Diehl and Spinler (2013) suits our research problem. According to the authors, the case study is the preferred strategy in exploratory research, because: "how" questions are posed to identify operational links, which have to be traced over time; the investigator has little control over events (unlike in an experiment); and the focus is on a contemporary phenomenon within some real-life context. Based on the collected data from the companies, the complete measures regarding supply chain is calculated and summarized in Table AII.

4. Results and discussions
To make our system complete, we start in analyzing the financial performance measures of the consumer goods industries in which the financial performances of their respective

Chemical	CP	Food and beverages	Heavy machinery	NCE	Pharm.	Rest.	Retailers	Semi-conductors	CE	Automotive
BASF	Unilever	Coca Cola	Caterpillar	Cisco Systems	J&J	McDonald's	Amazon	Intel	Apple	Ford
DuPont	P&G	PepsiCo	Cummins	Qualcomm	AstraZeneca	Starbucks	Inditex	TI	Samsung	BMW
Syngenta	C-P	Nestlé	John Deere		Lilly		Wal-Mart		Dell	Volkswagen
Dow	Clark	Kraft Foods					H&M		Lenovo	Hyundai
		General Mills					Costco		Haier	Tata

Notes: CP, consumer products; CE, consumer electronics; NCE, network and communication equipment; Rest., restaurants; TI, Texas instruments; C-P, Colgate-Palmolive; Pharm., pharmaceutical; J&J, Johnson & Johnson

Table I.
Category by industry type for Gartner®'s top 50 ranking

Companies	No. of employees	Sales (US$1,000)	Companies	No. of employees	Capital (US$1,000)
East Africa Industries	221	29,929	Great Abyssinians Water	136	1,218
Ethiopian Pulp and Paper	537	11,487	EPHARM	578	6,248
Oxford Industries	799	6,068	Star Soap and Detergents	178	3,538
Zenith Gebs-Eshet	568	6,105	Mekbeb Cosmetics	185	2,524
Faffa Food Factory	257	3,020	Dugda Agro Industry	273	1,624
Health Care Foods	110	2280	Yekatit Paper SC	314	1,017
Kality Food Factory	287	1,473	MAMCO	112	1,037
KOJJ Food Complex	219	2,058	National Tobacco	583	37,533
Shewa Bakery	676	1,269	Kokeb Pasta and Macaroni	191	1,407
Wonji Sugar Factory	3,625	22,693	Addis Modjo Edible SC	291	5,984
Awash Wines	525	5,342	Hakammaz Confectioneries	123	513
East African Bottling	541	24,275			

Table II.
Companies under
study in 2010

companies are clearly shown in Table AII. Based on their annual reports and case studies, the performance ratios are calculated during the year 2008-2012. The ratios are revenue growth, profit margin, operating margin, ROA and revenue per employees to see how the company is doing efficiently and effectively in the supply chain perspectives.

The total trends of ROA in a benchmark is decreasing from 2008 to 2012 due to companies being either more responsive through global network reach than being efficient with minimum profit or by investing in infrastructure such as information technology and transportation which increases responsiveness, as can be seen in Figure 1. The figure tells us the comparison of the consumer products industries by ROA for some sample supply chains compared to the best practice to show the position of the supply chains.

The complete comparison of the supply chains is shown in the Figure 2. From figure, one can infer that MOHA Soft Drink, Dugda Agro Industry, National Tobacco SC, Ethiopian Pulp and Paper SC, Zenith Gebs-Eshet, and Addis Modjo Edible Oil Factory are the leading efficient company in converting assets to profit. These supply chains seem to be competent in their ROA with supply chain leaders performing around and above 8 on an average from 2008 to 2012 compared to those 9-15 for best class supply chains in the same year range. The results are awesome for Ethiopian supply chains as compared to the result found by Wagner *et al.* (2012) for world manufacturing industries whose supply chain fit has the average value of above 7.41. Most of the consumer supply chains considered performed above and nearer to ROA of 6 which is also acceptable level to continue in the efficient frontier. However, companies like EPHARM and Hakammaz performed worst under these measures, which are considered inefficient compared with both the supply chains within the
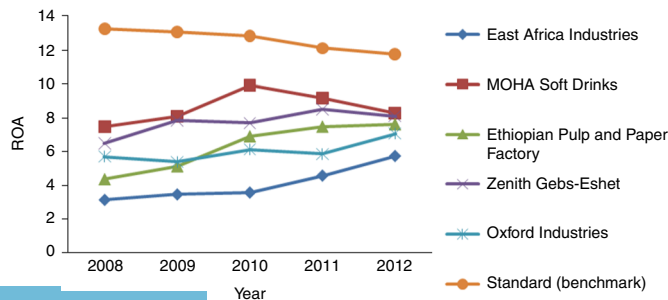

Figure 1.
ROA comparison of
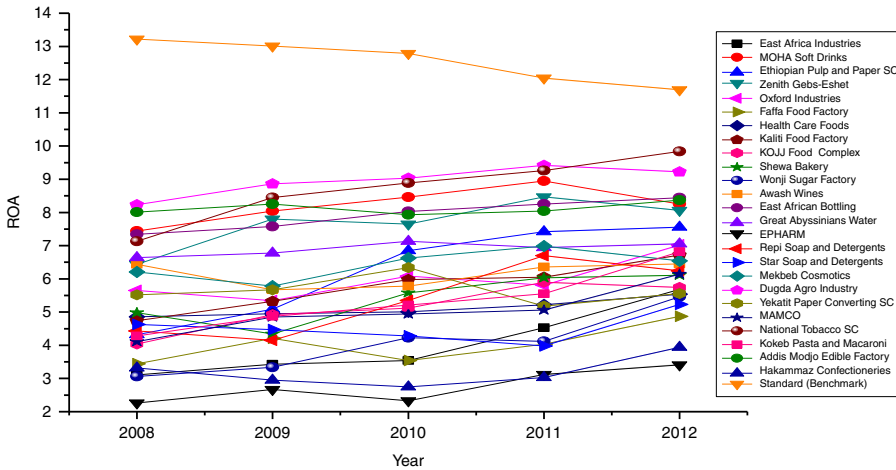sample companies
against benchmarks

Figure 2.
ROA comparison of
all companies against
benchmarks

country and abroad. Good news from Ethiopian supply chains is that their trends in ROA
are increasing while world leader supply chains are decreasing.

Regarding revenue growth, most of the industries in the leading supply chains are hit by
financial crisis of 2008-2009 and the majority of them revealed negative growth irrespective
of Ethiopian supply chains which showed a magnificent increase in their revenues. This is
because institutively the crisis majorly hit the American companies (US is the source of that
crisis). Figure 3 shows the revenue growth of some sample supply chains against best-in-
class supply chains to show the positions of most of the supply chains in Ethiopia.
The complete comparison of all consumer supply chains with the leading supply chains is
shown in the Figure 4. From Figure 4, we can see that almost all companies' revenue growth
is increasing consistently. Besides, we can say that Ethiopian supply chains are performing
well with respect to this metrics. It is also seen that MOHA Soft Drinks, East African
Bottling, National Tobacco SC and Addis Modjo Edible Oil Factory showed a persistent
increase in revenue growth and also competent to the world class supply chain leaders
performing the revenue growth of 10 on an average. Most supply chains perform nearer to
7-9 growth in revenue and are not bad under this metrics. Some supply chains like Health
Care Foods, Oxford Industries, Zenith Gebs-Eshet, and Star Soap and Detergents performs
nearer to 3 percent increase in revenue on average and these supply chains performs in a
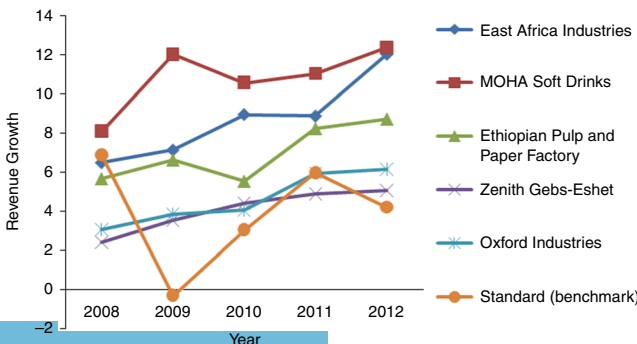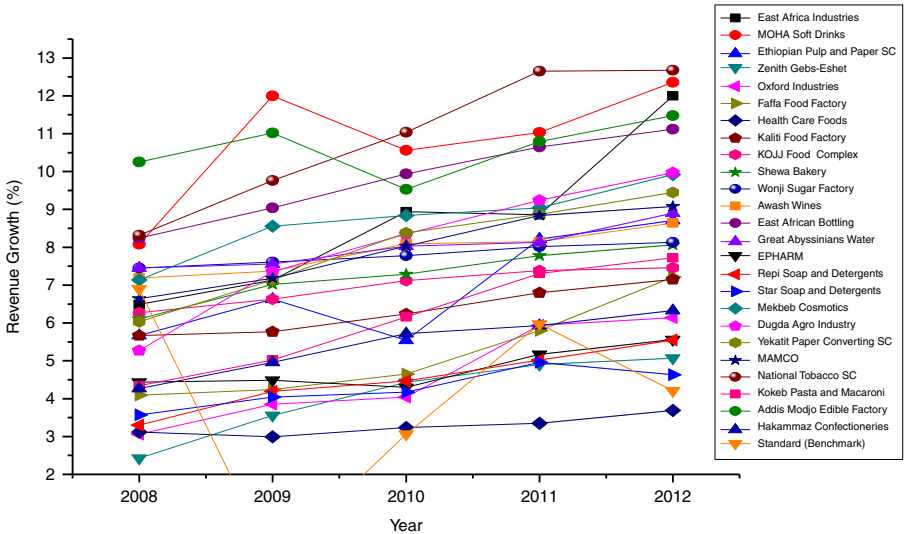lesser extent compared to those within the supply chain found in the country. However,

Figure 3.
Revenue growth
comparison of some
companies against
benchmarks

Figure 4.
Revenue growth
comparison of all
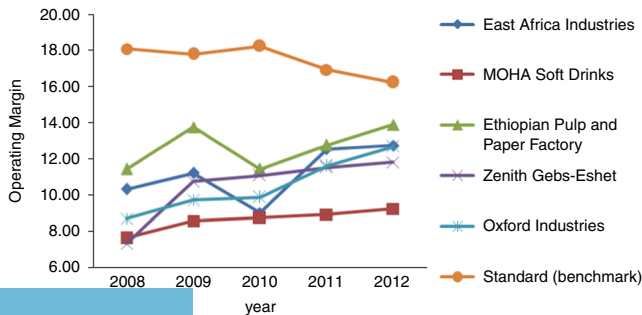companies against
benchmarks

revenue growth of the benchmark showed a cyclical pattern due to uncertainties and risks mentioned earlier.

Figures 5 and 6 show a comparison of companies on operating margin. Operating margin is a ratio used to measure a company's pricing strategy and operating efficiency. It is a measurement of what proportion of a company's revenue is left over after paying for variable costs of production such as wages, raw materials, etc. A healthy operating margin is required for a company to be able to pay for its fixed costs, such as interest on debt. It is clearly seen from Figure 6 that the benchmark's operating profit is in a decreasing trend. But, for Ethiopian industries, again is in an increasing trend and the most efficient in operations and pricing strategies are National Tobacco SC, East African Bottling and Addis Modjo Factory performing about 12 percent operating margin on average. In contrary, companies like Repi Soap and Detergents, Faffa Food Factory, Star Soap and Detergents have lower values of operating margin. In this ratio, the Oxford Industries seems to be very stable through the overall years.

Figure 7 tells us the companies' comparison based on the profit margin. A profit margin is a ratio of profitability which measures how much out of every dollar of sales a company actually keeps in earnings. A higher profit margin indicates a more profitable company that has better control over its costs compared to its competitors. Based on this premises and

Figure 5.
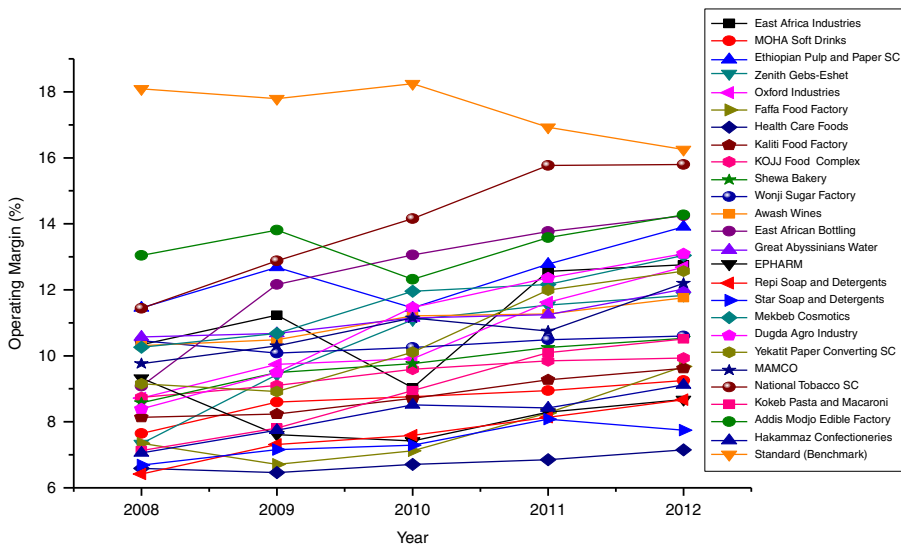Operating margin
comparison of some
companies against
benchmarks

Figure 6.
Operating margin
comparison of all
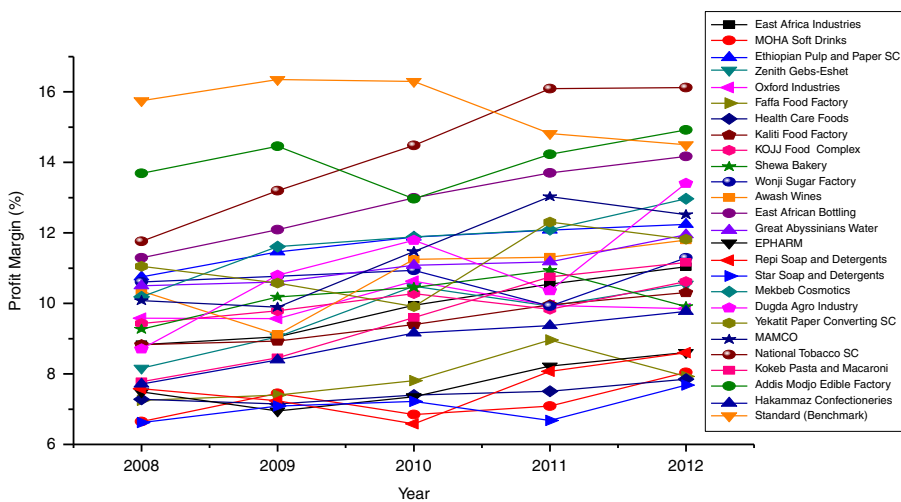companies against
benchmarks

Figure 7.
Profit margin
comparison of
companies against
benchmarks

comparing with Figure 7, we can infer that National Tobacco, Addis Modjo and East African Bottling had a remarkable profitability ratio even very closer to the world class performers. However, most personal cares and confectionery are the least profitable. In this margin, Ethiopian consumer supply chains are seen competitive to the benchmarks. East African Industries is maintaining stable profit margin over the periods and those of benchmarks are decreasing over recent periods.

Finally, the revenue per employee shown in Figures 8 and 9 tells how productive the employers in each of the companies are. This ratio is most useful when compared against other companies in the same industry. Ideally, a company wants the highest revenue per employee possible, as it denotes higher productivity. In this particular case, no single Ethiopian supply chains are closer to the benchmarks. This shows that most of the companies
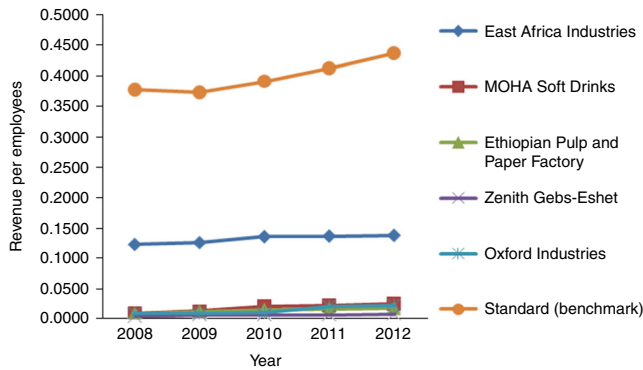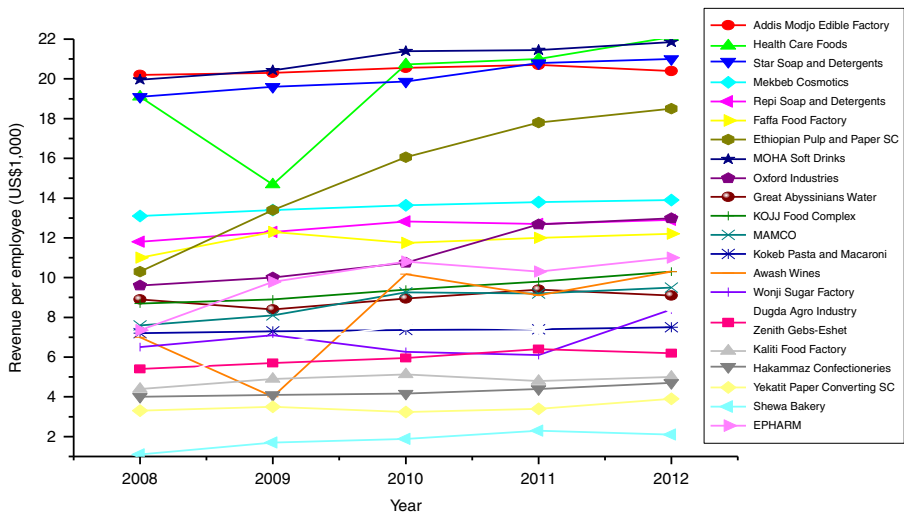
are unproductive. But comparing within the companies, East African Industries, East African Bottling and national Tobacco are the most productive with respect to their employees and Health Care Foods, MOHA Soft Drinks, Ethiopian Pulp and Paper SC, Addis Modjo and Star Soap and Detergents showed better productivity with Ethiopian Pulp and Paper SC increases progressively. Mekbib Cosmetics had the stable performance throughout the years. However, Shewa Bakery, Hakammaz Confectionaries, Kaliti Food factory and Yekatit Paper Converting SC are the least productive based on employee productivity.

5. Conclusions and future works

Financial metrics are used to check the positions of Ethiopian consumer products supply chains. Based on ROA, revenue growth, operating margin, profit margin and revenue per employee, companies are compared with best practices. The result shows that the Ethiopian supply chains are performing well under revenue growth metrics and low under revenue per employee metrics. The result also shows us that these supply chains are accumulating

inventories and are also seen as inefficient and ineffective in their performances. The supply chains are also seen unproductive in their employee compared to benchmarks. Hence, even though many factors are determining the efficiency-responsiveness of the supply chain, using ROA metrics, we can conclude that MOHA Soft Drink, Dugda Agro Industry, National Tobacco SC, Ethiopian Pulp and Paper SC, Zenith Gebs-Eshet, and Addis Modjo Edible Oil Factory are the most efficient of the supply chains. This result is supported by Wagner *et al.* (2012) that ROA as the net income divided by total assets shows how effectively a firm utilizes its assets in generating profits. Looking into revenue growth, MOHA Soft Drinks, East African Bottling, National Tobacco SC and Addis Modjo Edible Oil Factory showed the greatest growth. Based on both margins, National Tobacco, Addis Modjo and East African Bottling are the effective and efficient supply chains. It can be concluded also that East African Industries, East African Bottling and National Tobacco are the most productive in their employees. In general tobacco and beverage supply chains performs better under the supply chain measures against the benchmarks. However, personal care supply chains are performing low compared to both horizons.

In this paper, we consider only financial measures. However, due to the complexity of the metrics, it is customary to solve problems from simple to complex SC problems. The next tasks of the researchers are incorporating the operational metrics to the mentioned supply chains and finding the balanced metrics for both financial and operational metrics. The other research area in the future could be finding the shareholder value that the effective supply chain management adds to the overall profitability of an organization. The level of impact of supply chain metrics on firm's competitiveness is also a fertile area of research.

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(The Appendix follows overleaf.)

Appendix 1

Financial metrics	2008	2009	Year 2010	2011	2012
Unilever					
ROA	14.39	10.00	11.76	10.43	10.56
Revenue growth	0.84	3.50	4.10	6.50	10.50
Operating margin	17.69	12.61	14.32	13.84	13.62
Profit margin	13.04	9.19	10.39	9.95	9.64
Revenue per employee	0.23289	0.2370	0.2682	0.2749	0.2984
P&G					
ROA	9.00	9.64	9.68	8.85	7.95
Sales growth	9.31	−3.11	3.28	4.29	3.18
Operating margin	20.26	20.17	20.23	19.11	15.88
Profit margin	15.54	17.84	16.38	14.55	12.85
Revenue per employee	0.5756	0.5704	0.6123	0.6287	0.6641
Colgate-Palmolive					
ROA	19.48	21.70	19.75	20.35	18.93
Sales growth	11.17	−0.02	1.55	7.52	2.10
Operating margin	21.30	23.59	24.39	23.05	22.76
Profit margin	12.77	14.95	14.15	14.53	14.47
Revenue per employee	0.4188	0.4022	0.3970	0.4335	0.4531
Kimberly-Clark					
ROA	10.01	10.69	9.95	8.58	9.32
Sales growth	6.29	−1.55	3.30	5.57	1.04
Operating margin	13.12	14.78	14.04	11.71	12.75
Profit margin	9.42	10.43	9.84	8.08	8.68
Revenue per employee	0.3347	0.3353	0.3464	0.3722	0.3974

Note: Revenue per employee is per millions of USD

Table AI.
Financial performance measures for consumer goods SCs in the world

Appendix 2

Financial metrics	2008	2009	Year 2010	2011	2012
East African Industries					
ROA	3.11	3.43	3.54	4.53	5.68
Revenue growth	6.49	7.13	8.94	8.86	12
Operating margin	10.34	11.23	9.03	12.56	12.76
Profit margin	8.83	9.05	9.95	10.55	11.04
Revenue per employee	0.1225	0.1256	0.1354	0.1364	0.1376
MOHA Soft Drinks					
ROA	7.44	8.04	9.86	9.11	8.25
Revenue growth	8.08	12	10.56	11.03	12.36
Operating margin	7.65	8.6	8.76	8.95	9.25
Profit margin	6.65	7.45	6.85	7.09	8.04
Revenue per employee	0.0098	0.0134	0.0214	0.0224	0.0256
Ethiopian Pulp and Paper Factory					
ROA	4.32	5.09	6.85	7.42	7.56
Revenue growth	5.67	6.63	5.54	8.22	8.71
Operating margin	11.45	13.78	11.45	12.78	13.91
profit margin	10.75	11.46	11.88	12.08	12.24
Revenue per employee	0.0103	0.0134	0.0161	0.0178	0.0185
Oxford Industries					
ROA	5.65	5.34	6.08	5.81	7.02
Revenue growth	3.06	3.85	4.04	5.94	6.14
Operating margin	8.72	9.74	9.91	11.62	12.69
Profit margin	9.58	9.57	10.63	9.94	9.85
Revenue per employee	0.0096	0.01	0.0107	0.022	0.023
Zenith Gebs-Eshet					
ROA	6.44	7.8	7.65	8.47	8.06
Revenue Growth	2.43	3.56	4.43	4.9	5.07
Operating Margin	7.34	10.76	11.09	11.54	11.83
Profit margin	8.16	9.05	10.49	9.92	10.55
Revenue per employee	0.0045	0.0067	0.0076	0.0074	0.0085

Note: Revenue per employee is per millions of USD

Table AII.
Financial performance measures for some selected SCs in Ethiopia

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