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SUPPLY CHAIN INTEGRATION PERFORMANCE SCALE IN ETHIOPIAN TEXTILE INDUSTRIES

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ABSTRACT
By combining supply network macro operations and decision-making levels, the study builds an integrated supply chain performance integration measurement scale (SCIPS) framework that offers a more thorough method for investigating supply chain performance measurement. Performance and supply chain-related theories serve as the foundation for the philosophical framework. In addition to looking at performance measures, the study looks into how well the Ethiopian textile industries' supply chains are integrated. Professionals in the textile sector self-reported the data, and bias analysis was carried out using the standard method. Professionals in the textile sector were mailed or administered the survey, and 385 data points were gathered through the properly filled-out study questionnaire. This study's objectives included developing an integrated supply chain performance assessment scale for Ethiopia's textile industries, confirming the factorial design of the measurement, and ultimately identifying the test's psychometric properties. Exploratory and confirmatory factor analyses were utilized to achieve these objectives. To better grasp the regional realities in this subject, a study was done to comprehend and assess the supply chain in the textile industry, along with any probable causes and practices.
Keywords: Supply chain management, Performance measurement, Supply chain integration, Textile industry.

1. Introduction
In the 18th century, British inventors started automating the carding, spinning, and weaving procedures utilized in the little textile industry (African development bank, 2008). African nations do not engage in the global textile and apparel market to the same extent as Asian

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nations, the EU, or the US. Ethiopia is a nation in the Horn of Africa, bordered to the east by Somalia, to the west by Sudan and South Sudan, to the north by Eritrea, to the south by Djibouti, and to the north by Kenya. With a population of over 120 million, Ethiopia is the second most populous nation in Africa. Unskilled labor and rather basic procedures can be used to create textiles. A larger industry was built on the foundation of traditional hand spinning, weaving, and stitching methods.

2. Review of Literature

Supply chain integration is a process of interaction and cooperation in which businesses involved in a certain supply chain cooperate to come to mutually acceptable decisions (Pagell, 2004). Various forms of literature view supply chain integration as a cooperative endeavor to link industrial attachment and supply chains in terms of procedures, data, and physical flows (Mentzer et al., 2001).

Performance is the efficacy and efficiency of a task, or the speed and accuracy with which inputs are transformed into outputs (Neely et al., 2005). Therefore, for greater performance, the procedure must be dignified. As a result, performance assessment is crucial for organizational management. Organizational performance is the efficiency with which a company meets both financial and market-oriented objectives (Yamin et al., 2007).The performance of any manufacturing industry consist of quality, financial indicators, speed of manufacturing, productivity, internal stakeholders and the external stake holders of the organization (Sadler & Hines, 2002; Zailani & Rajagopal, 2005, Smith., 2005; De Toni &Tonchia., 2001; Tan et al., 1998; Stank et al., 1999).

The current study used a sample of Ethiopian textile industry workers to re-examine the construct's indigenous implications using the knowledge of resource based view (RBV), stakeholder theory (ST), institutional theory (IT), and transaction cost theory (TCT). Finding out how many different contexts integrated supply chain performance is measured was the strategy. It is important to stress those employees' frequently over- or under-report instances of supply chain management, despite the fact that it permeates both overt and covert levels of organizations and industries. The goals of this study included creating the Supply Chain Integration Performance Scale (SCIPS) for Ethiopian textile industry, validating the measurement's factorial design, and finally determining the test's psychometric qualities.

Research on supply chain management examining the correlates of measuring stereotypes of performance has revealed, for instance, the coordination among the internal stakeholders might lead to better and developed communication which increases the transparency in the organisation which eventually leads to better performance of supply chain. (Zailani & Rajagopal, 2005; De Toni &Tonchia., 2001; Tan et al., 1998; Stank et al., 1999)

The research in the supply chain domain (Mentzer et al. 2001) found that the improved technical installment leads to better information sharing and this enables the internal stakeholders to make good will with external stakeholders such as customers and suppliers there by increasing the productivity of the organisation which is accountable for measuring performance of supply chain (Sadler & Hines, 2002; Smith., 2005; Tan et al., 1998; De Toni & Tonchia., 2001). Different scales that have been produced over time to evaluate this domain in various ways with various theoretical definitions are another

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component of study for these domains (Zailani & Rajagopal, 2005; De Toni &Tonchia., 2001; Tan et al., 1998; Stank et al., 1999; Smith., 2005; Tan et al., 1998). All of these studies suggest that Ethiopian textile workers experienced better supply chain integration performance that is both universal and unique.

The local examination of supply chain integration performance is still needed despite its extensive global study. It was observed that there are differences across individuals and domains in how supply chain integration performance is perceived and reported. Most crucially, because of theories such as resource based view (RBV), stakeholder theory (ST), institutional theory (IT), and transaction cost theory (TCT) theoretical foundations, there have been findings of over- or under-reporting in this setting (Barney, 1991; Mata et al., 1995; Touboulic and Walker, 2015; Freeman, 1994; Jones, 1995; Oliver, 1990; Huang et al., 2016; Williamson, 1985, 1991; Koh and Venkatraman, 1991). In this study, Textile workers in Ethiopia were asked to participate in the construction of a supply chain integration performance scale to quantify the underlying concept.

3. Methodology

The Supply Chain Integration Performance Scale (SCIPS) was constructed in Phase I of the current study with the goal of achieving the aforementioned objectives, and Phase II of the study focused on using confirmatory factor analysis to establish the factorial validity of the newly developed SCIPS.

Phase-I: Supply Chain Integration Performance Scale (SCIPS)

The Supply Chain Integration Performance Scale (SCIPS) was developed using the empirical approach to scale development (Cohen, 2013, 2018; Cohen & Swerdlik, 2001; Worthington & Whittaker, 2006). The process included the creation of an item pool, expert content validity evaluation of the items, empirical evaluation through exploratory factor analysis, and a reliability analysis of the Supply Chain Integration Performance Scale (SCIPS). Five experts from textile industries were called for focus group conversations and it was used to create the item pool. The prejudice that was encountered in the realms of (a) Financial, (b) Quality, (c) Productivity, (d) Time, (e) Internal supply chain, (f) External supply chain, and (g) Information communication technology was categorized.

Fifty-three items were produced via an expert review based on the maximum frequency answers for each group and the ostensible face validity of the item with regard to that group. Five Ph.D. specialists in supply chain management and scale creation were asked to assess the items as part of this procedure for more in-depth analysis. The response range for later questions varied from strongly disagreeing (strongly disagree = 5) to strongly agreeing (strongly agree = 1) on a 5-Likert scale.

Exploratory factor analysis technique was used to analysis the data.

4. Results of Exploratory factor analysis

Through the use of a convenient sampling strategy, 385 textile workers in Ethiopia were selected as a sample. The age range (M = 30.29; SD = 5.86) was 21 to 52.

Item Pool for Supply Chain Integration Performance Scale the measure employed in this study was a 5-point Likert type scale, Strongly Disagree = 5 to Strongly Agree = 1, consisting of 24 questions with both positively statements (items 1–59). Employees who were managers, middle managers, supervisors and workers employed by a textile industry in Ethiopia (in and

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around the region of Addis Ababa) provided the data. Participants were informed of the study's objectives and given guarantees about the privacy and anonymity of their replies. The following are the outcomes of EFA screening employing item total correlation, prospective rotational approach, and psychometric properties through alpha reliability coefficient:

Table 1 Items total Correlation of Supply Chain Integration Performance Scale (SCIPS) (N = 385)

No.	*r*	No.	*r*	No.	*r*	No.	*r*	No.	*r*	No.	*r*
1	.75**	11	.73**	21	.64**	31	.65**	41	.54**	52	.57**
2	.63**	12	.70**	22	.70**	32	.66**	42	.64**	52	.53**
3	.65**	13	.76**	23	.71**	33	.59**	43	.69**	53	.54**
4	.67**	14	.65**	24	.75**	34	.58**	44	.69**	54	.41**
5	.76**	15	.62**	25	.78**	35	.48**	45	.69**	55	.46**
6	.72**	16	.61**	26	.75**	36	.64**	46	.69**	56	.39**
7	.78**	17	.63**	27	.75**	37	.61**	47	.55**	57	.43**
8	.71**	18	.71**	28	.68**	38	.65**	48	.57**	58	.55**
9	.79**	19	.73**	29	.76**	39	.60**	49	.57**	59	.46**
10	.73**	20	.64**	30	.44**	40	.53**	50	.55**		

Note. **p < .01

In order to conduct the EFA on the items in order to discover factor structure, (Costello and Osborne 2019; Fabrigar et al., 1999; Fabrigar & Wegener, 2012) resorted to the varimax rotation approach for the 59 items that had substantial positive correlation and internal consistency. Principal Component Analysis (PCA) analysis was used to investigate the 59 items of the Supply Chain Integration Performance Scale (SCIPS). PCA is recommended as being easier to read and comes closer to recreating the common variance (DeVellis, 2017; Fibiger & Wegener, 2012; Howard, 2016). The final selection criterion for an item was a factorial loading greater than .50. Bartlett's Sphericity test 4826.328 (276df) (P = .000) and the KMO value of .864 helped determine the data fitness and the appropriate beginning statistics to use for the study.

Table 2.Factor Loadings for Supply Chain Integration Performance Scale (SCIPS) through Principal Component Analysis by using Varimax Rotation Method (N = 385)

Rotated Component Matrix[a]

	Component							
	1	2	3	4	5	6	7	8
SCPM1				.510				
SCPM2								
SCPM3								
SCPM4								
SCPM5				.777				
SCPM6								
SCPM7				.542				
SCPM8				.780				
SCPM9				.648				
FMI1						.526		

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FMI2				.740			
FMI3				.737			
FMI4				.638			
FMI5				.570			
FMI6				.514			
FMI7				.542			
FMI8				.736			
FMI9				.778			
FMI10				.780			
FMI11							
QL1							.634
QL2							.679
QL3							.764
TIM1					.542		
TIM2					.577		
TIM3					.740		
TIM4					.771		
TIM5					.705		
TIM6					.600		
TIM7					.731		
PR1	.650						
PR2	.580						
PR3	.665						
PR4	.668						
PR5	.632						
PR6	.705						
ISCI1		.507					
ISCI2		.632					
ISCI3		.569					
ISCI4		.729					
ISCI5							
ISCI6		.713					
ESCI1				.624			
ESCI2				.627			
ESCI3				.715			
ESCI4				.528			
ESCI5							
ESCI6				.512			
ESCI7				.569			
ESCI8				.653			
ESCI9				.595			
ICT1			.528				
ICT2			.686				

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ICT3	.730
ICT4	.596
ICT5	.538
ICT6	.627
ICT7	.818
ICT8	.767

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 53 iterations.

The factor structure and construct validity of the SCIPS were determined using principal component analysis utilizing the varimax rotation approach, as shown in Table 2. Varimax is advised by DeVellis (2017) as the preferable orthogonal rotation option. There are several choices for rotating factor matrices. In this study, the most popular strategy—varimax rotation—was utilized to try to minimize the number of variables with high loadings on a component. This ought to make the components easier to comprehend. In the rotated factor matrix obtained via Varimax rotation, each factor associates with a few sets of variables (Fabrigar & Wegener, 2012; Cureton & Mulaik, 1975).

Each item has a distinct representation in the eight categories that were first created through qualitative research. In addition, the factor loadings for these items indicate complete non-overlapping and extremely strong construct uniqueness. Items held back when deciding if eight factors are an appropriate factor solution, five communalities, or less precise within-variable variation, and a total factorial variance of 75.26 are taken into account (Field, 2009). As demonstrated in Figure 1, a scree plot was used as the discrete criterion to look for Eigenvalues larger than 1 and single-factor variance contributions of at least 5%.

Results Phase I

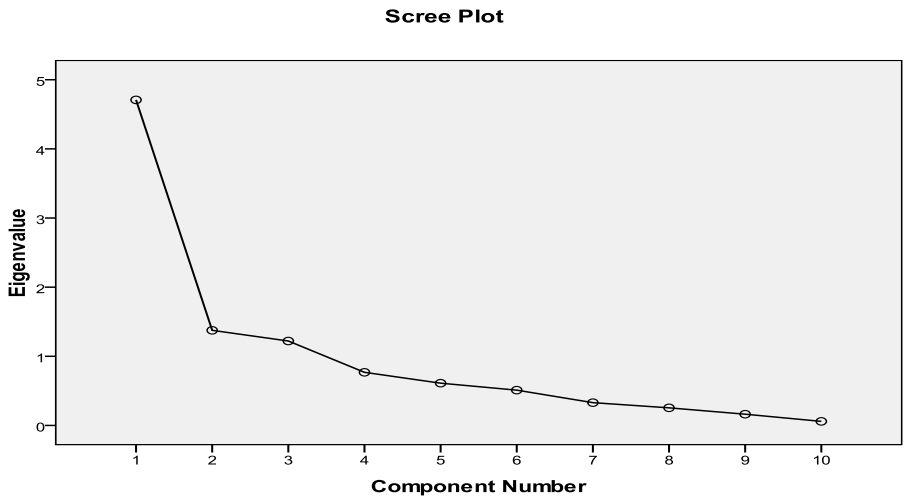

Figure 1: Scree plot Showing Extraction of Factors of Supply Chain Integration Performance Scale (SCIPS)

Final Supply Chain Integration Performance Scale (SCIPS)

The score range of 52-260 on the response options has shown eight components or subscales of the corresponding assessment. Strongly Agree to Strongly Disagree: 5 to 1. The

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subject's higher score reflects a greater level of industrial experience with supply chain integration performance. The following information pertains to each component or subscale:

F1: Supply chain Performance

There were a total of 9 items loaded onto this factor (SCPM1, SCPM5, SCPM7, SCPM8, and SCPM9). The range of this subscale's scores was 5 to 25, with a higher score indicating high performance of supply chain. It addresses general administrative works in the industry such as planning and policies, power resources, availability of technology, raw materials supply, demand management, research and development, training and development, government policies and administrative systems.

F2: Financial measures

There were a total of 10 items loaded onto this factor (FMI1, FMI2, FMI3, FMI4, FMI4, FMI5, FMI6, FMI7, FMI8, FMI9, FMI10). The range of this subscale's scores was 10 to 50, with a higher score indicating high financial gains. It addresses profits and cost in the industry while manufacturing textile such as sale revenues, trade agreements on profit sharing, economies of scale, incentives from government, supply cost per order, operating cost, inventory cost, cost of production, and wage pay.

F3: Quality measures

There were a total of 3 items loaded onto this factor (QMI1, QMI2, QMI3). The range of this subscale's scores was 3 to 15, with a higher score indicating high quality production and product. It addresses production quality in the industry while manufacturing textile such as performance of production without shortage, meeting the demands and needs of customer and product variety.

F4: Time measures

There were a total of 7 items loaded onto this factor (TM1, TMI2, TMI3, TMI4, TMI5, TMI6, and TMI7). The range of this subscale's scores was 7 to 35, with a higher score indicating high speed production. It addresses industry's ability to meet deadline, response time to suppliers, manufacturing lead time, average transit time, and order entry time.

F5: Productivity

There were a total of 6 items loaded onto this factor (PR1, PR2, PR3, PR4, PR5, and PR6). The range of this subscale's scores was 6 to 30, with a higher score indicating high productivity. It addresses industry's ability to fulfill purchase orders, monitoring the production rate, labor utilization, machine utilization, operating efficiency and warehouse space utilization.

F6: Internal supply chain

There were a total of 5 items loaded onto this factor (ISCI1, ISCI2, ISCI3, ISCI4, and ISCI6). The range of this subscale's scores was 5 to 25, with a higher score indicating higher contribution and coordination among the internal members of the organisation. It addresses proper communication among the departments, information sharing, plan coordination, technology sharing and strategy formulation.

F7: External supply chain

There were a total of 8 items loaded onto this factor (ESCI1, ESCI2, ESCI3, ESCI4, ESCI6, ESCI7, ESCI8, ESCI9). The range of this subscale's scores was 8 to 40, with a higher score indicating higher contribution and coordination among the external stakeholders of the

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organization. It addresses proper communication with customers, collaboration with customers, information sharing with customers and suppliers, relationships with dealers and customers, customer satisfaction and rewarding suppliers.

F8: Information communication and technology

There were a total of 8 items loaded onto this factor (ICT1, ICT2, ICT3, ICT4, ICT5, ICT6, ICT7, ICT8). The range of this subscale's scores was 8 to 40, with a higher score indicating higher technology development. It addresses advanced communication system, automation, marketing technologies, advanced software systems, ERP, e-procurement and online service handling.

Psychometric properties of Supply Chain Integration Performance Scale (SCIPS)

To determine the scale's psychometric characteristics, correlation coefficients were computed as follows:

Table 3 Mean, Standard Deviation, Cronbach Alpha and Correlation of Supply Chain Integration Performance Scale (SCIPS) and its Subscales among Textile workers in Ethiopia (N= 385)

Sr. No.	Variables	SCIPS	1	2	3	4	5	6	7	8
	SCIPS		.62**	.83**	.76**	.66**	.72**	.65**	.78**	.82**
1	SCPM			.45**	.39**	.27**	.20**	.29**	.38**	.43**
2	FMI				.55**	.44**	.58**	.40**	.67**	.65**
3	QMI					.41**	.50**	.41**	.58**	.59**
4	TMI						.48**	.60**	.40**	.44**
5	PR							.43**	.57**	.62**
6	ISCI								.37**	.49**
7	ESCI									.63**
8	ICT									
Number of Items		52	5	10	3	7	6	5	8	8
Cronbach Alpha		0.84	0.73	0.71	0.83	0.72	0.81	0.91	0.92	0.86
M		25.56	3.35	3.16	3.24	3.30	3.2	3.22	3.08	3.01
SD		5.61	0.74	0.49	0.83	0.69	0.78	0.76	0.66	0.60

Phase II: Factorial Validity of Supply Chain Integration Performance through Confirmatory Factor Analysis.

Supply Chain Integration Performance

The major supply chain performance theories such as resource based view (RBV), stakeholder theory (ST), institutional theory (IT), and transaction cost theory (TCT) forms the theoretical foundation for measuring the performance of the integrated supply chain in the manufacturing industries, holds that concerns arises from realizing numerous factors that has to be included and omitted to measure the actual performance associated with integrating the supply chain. A high score on the supply chain integration performance evaluation measure indicates that employees of an organization experience more developed or improved performance of supply chain, whilst a low score on the supply chain integration performance evaluation measure indicates that employees of an organization experience less performance in the Ethiopia textile industry.(Barney, 1991; Mata et al., 1995; Touboulic and Walker,

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2015; Freeman, 1994; Jones, 1995; Oliver, 1990; Huang et al., 2016; Williamson, 1985, 1991; Koh and Venkatraman, 1991).

Instruments

The Supply Chain Integration Performance Scale (SCIPS), comprises 52 questions with a 5-Likert rating. Employees are more likely to perceive high supply chain performance when they score higher, while employees who score lower are more likely to sense low or poor integration performance. Strongly Disagree = 5 to Strongly Agree = 1, with a possible score range of 52 - 260 on the total SCIPS. Following are the eight underlying subscales of the SCIPS along with their item numbers:

Supply chain Performance: 5 items (SCPM1, SCPM5, SCPM7, SCPM8, and SCPM9), score range from 5 to 25.

Financial measures: 10 items (FMI1, FMI2, FMI3, FMI4, FMI4, FMI5, FMI6, FMI7, FMI8, FMI9, FMI10), score range from 10 to 50.

Quality measures: 3 items (QMI1, QMI2, QMI3), score range from 3 to 15.

Time measures: 7 items (TM1, TMI2, TMI3, TMI4, TMI5, TMI6, TMI7), score range from 7 to 35.

Productivity: 6 items (PR1, PR2, PR3, PR4, PR5, PR6), score range from 6 to 30.

Internal supply chain: 5 items (ISCI1, ISCI2, ISCI3, ISCI4, ISCI6), score range from 5 to 25.

External supply chain: 8 items (ESCI1, ESCI2, ESCI3, ESCI4, ESCI6, ESCI7, ESCI8, ESCI9), score range from 8 to 40.

Information communication and technology 8 items (ICT1, ICT2, ICT3, ICT4, ICT5, ICT6, ICT7, ICT8), score range from 8 to 40.

A convenient sampling technique was used to choose 385 textile industry workers in Ethiopia, whose ages ranged from 21 to 52 (M = 30.57; SD = 5.67). Citizens of Ethiopia who worked as managers, middle managers, and supervisors at textile industries provided the data. The study's goal was explained to participants, and at the conclusion, they were thanked with the assurance that the data would remain secret and anonymous.

Confirmatory factor analysis was used to demonstrate the factorial validity of the Supply Chain Integration Performance Scale (SCIPS). Because CFA is theory-driven, theoretical links between the observable and unobserved variables are what guide the planning of the analysis.

Phase II Results

With a Cronbach Alpha of 90 and prospective and actual ranges of 52–260 and 26–112, respectively, the descriptive analysis results were as follows: M = 25.56, SD = 5.61. Confirmatory factor analysis was conducted on the items in table 4 in accordance with these findings.

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Table 4: Factor loadings (Standardized Regression weights) for Eight Factors of SCIPS (N= 385)

Sr.No.	Items.	Factor loading	Sr.No.	Items.	Factor loading	Sr.No.	Items.	Factor loading	Sr.No.	Items.	Factor loading
F1 – supply chain performance .62			F3 - Quality .62			F6 - Productivity .62			F5 - Internal supply chain .62		
1	1	0.96	16	2	0.94	26	1	0.86	40	1	0.99
2	2	0.95	17	3	0.96	27	2	0.94	41	2	0.99
3	3	0.95	18	4	0.95	28	3	0.96	42	3	0.97
4	4	0.96	F8 - Time .62			29	4	0.94	43	4	0.97
5	5	0.98	19	1	0.94	30	5	0.93	44	5	0.98
F2 - Financial .62			20	2	0.95	31	6	0.92	F1 - Information communication technology .62		
6	1	0.93	21	3	0.95	F4 - External supply chain .62			45	1	0.87
7	2	0.94	22	4	0.95	32	1	0.93	46	2	0.88
8	3	0.95	23	5	0.94	33	2	0.96	47	3	0.89
9	4	0.95	24	6	0.95	34	3	0.96	48	4	0.92
10	5	0.96	25	7	0.94	35	4	0.96	49	5	0.94
11	6	0.95				36	5	0.96	50	6	0.93
12	7	0.95				37	6	0.95	51	7	0.93
13	8	0.95				38	7	0.88	52	8	0.91
14	9	0.94				39	8	0.89			
15	10	0.93									

Source: *survey data, 202*

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The standardized regression weights of factor loadings for the 52 SCIPS items were displayed in Table 4. According to the findings, each component's factor loading is equal to or higher than .50, which was the criterion used to choose items for the scales creation.

CFA for SCIPS for 52 items produced notable results, according to the results of the confirmatory analysis, which may be the reason the null hypothesis was rejected. Some of the previously produced scales' rules were considered as allowing for the inclusion and reporting of numerous fit indices (Rafnsson et al., 2006). This was a reasonable model for CFA of 52 items of SCIPS, according to, CMIN/df = 3.357, Comparative Fit Index (CFI) =.0.984, Normed Fit Index (NFI) = 0.916, Tucker Lewis index (TLI) =.961, and Root Mean Square Error of Approximation (RMSEA) =.071.

The factorial validity of the SCIPS as a single construct with eight different and interconnected dimensions was supported by these fit indices, and this made it possible to use the SCIPS to gauge employee's perceptions of supply chain integration performance (MacCallum & Austin, 2000; Raykov et al., 1991; Barrett, 2007; Hoyle & Panter, 1995; Bentler, 2007; Medsker et al., 1994; Boomsma, 2000; Thompson, 2004; Hair et al., 2010; McDonald & Ho, 2002).

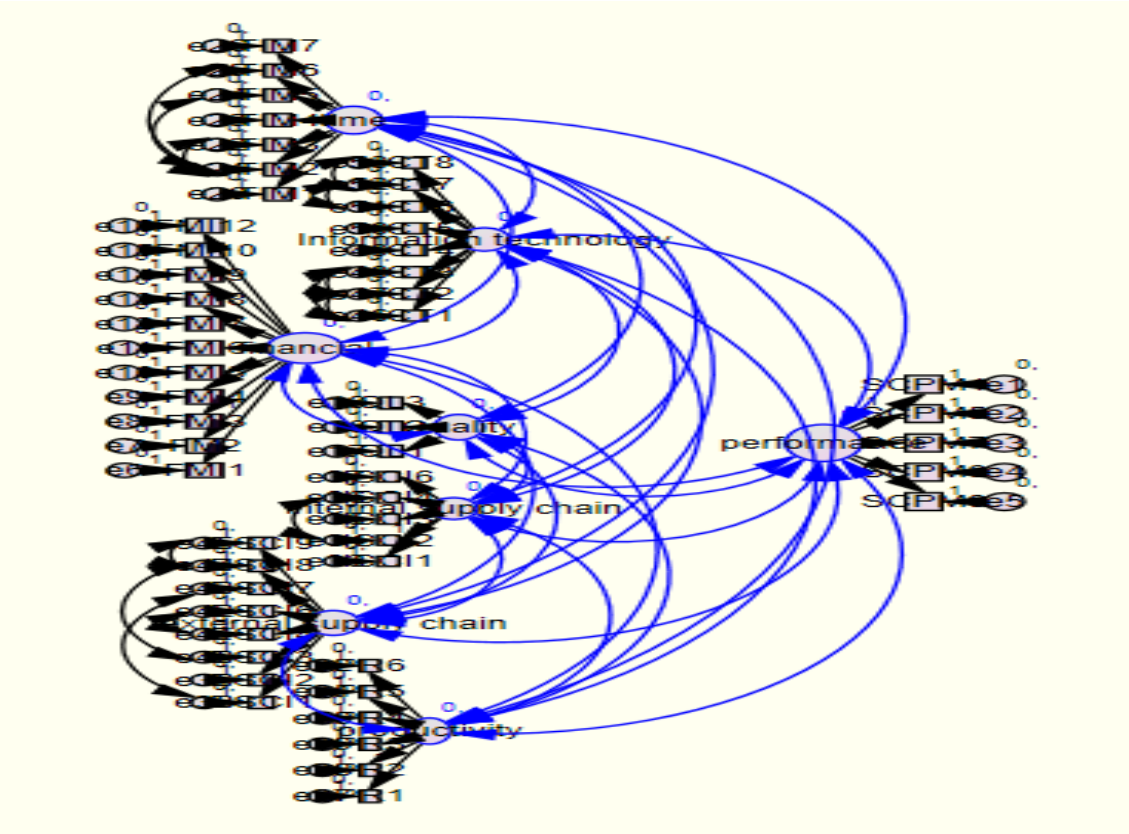

Figure 2: Confirmatory Factor Analysis of Supply Chain Integration Performance Scale (SCIPS) with eight subscales (52 items)

5. Discussion

The assumptions for measuring the performance of supply chain differs so greatly amongst industries, countries and organizations, the creation of evaluation measures for it

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often centers on qualitative research. In the past, study on these topics was primarily concerned with examining how supply chain was treated differently in various contexts, as well as the causes and effects of certain indicators that used to measure the performance of manufacturing industry as whole but not exclusive for supply chain.

The eight variables tracked various forms of performance measurement that are associated with supply chain integration. Supply chain Performance dimension addresses general administrative works in the industry such as planning and policies, power resources, availability of technology. Financial measures address profits and cost in the industry while manufacturing textile such as sale revenues, trade agreements on profit sharing, economies of scale, and incentives from government. Quality measures addresses production quality in the industry while manufacturing textile such as performance of production without shortage, meeting the demands and needs of customer and product variety. Time measures addresses industry's ability to meet deadline, response time to suppliers, manufacturing lead time, average transit time, and order entry time.

Productivity addresses industry's ability to fulfill purchase orders, monitoring the production rate, labor utilization, machine utilization, operating efficiency and warehouse space utilization. Internal supply chain addresses proper communication among the departments, information sharing, plan coordination, technology sharing and strategy formulation. External supply chain addresses proper communication with customers, collaboration with customers, information sharing with customers and suppliers, relationships with dealers and customers, customer satisfaction and rewarding suppliers. Information communication and technology addresses advanced communication system, automation, marketing technologies, advanced software systems, ERP, e-procurement and online service handling.

6. Implications

No matter how much and how many fields of strategic management strive to capture this complex idea, the debate over measuring the integrated supply chain performance is likely a topic that has been the subject of debate for ages due to new advancements and developments in the field. Similar efforts were made in the current study to explore this widely prevalent issue from the employee perception standpoint while also incorporating strategic viewpoints. With the addition of supply chain integration theory, this research deepens our understanding of the fields of supply chain management, supply chain integration, and supply chain performance.

When it comes to supply chain integration performance, the notion of resource based view (RBV), stakeholder theory (ST), institutional theory (IT), and transaction cost theory (TCT) were chosen to dispel the idea that performance of the industry is affected by both internal and external stakeholders not only in the absolute sense of the word but also in the relative sense of how it is seen. In order to better grasp the regional reality in this area, a study was piloted to comprehend and analyses supply chain management and performance, along with its potential causes and practices. It is simple to portray native conditions in a foreign light, yet this is not a realistic picture. A fresh, validated measure of reflection and

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application for the neighborhood was developed in order to gauge how supply chain is integrated and managed to be effective.

7. Limitations and Future Recommendations

Although making an effort to include everything in this study, it still a certain gap that has to be filled in the future due to resource and time limitations. In order to limit the scope of the research and the relevance of the findings to a certain group's knowledge and the reality of supply chain integration performance, the sample collection concentrated on citizens who are employed in textile industries in metropolitan regions like Addis Ababa. It is sad that the textile industry employees reside at rural areas and their perspectives on perceived supply chain performance have not been taken into account. It is advised that this crucial information be remembered for future studies.

8. Conclusion

Cronbach alpha, correlation coefficients, and exploratory and confirmatory factorial analyses of the locally designed scale, the supply chain performance integration measurement scale, all report better performance measurement results. Eight subscales are included in the SCIPS, covering Supply Chain Performance, Financial measures, Quality measures, Time measures, Productivity, Internal supply chain, External supply chain, Information communication and technology. Performance based on supply chain has many facets. Due to its indigenous knowledge and theoretical framework based on resource based view (RBV), stakeholder theory (ST), institutional theory (IT), and transaction cost theory (TCT), the SCIPS provides a comprehensive understanding of supply chain integration techniques, its existence, and its perception among Ethiopian textile workers.

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