The effects of Human Resource Management Practices on Supply Chain Flexibility
Evidence from Tourist Hotels in Tanzania

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Severine S. A. Kessy²

Abstract
This paper examined the effects of Human Resources Management practices on supply chain flexibility. Specifically, the paper determined the relationships between participation practices, selective hiring practices, compensation practices, job security practices, and teamwork practices on supply chain flexibility of tourist hotels in Tanzania. The study adopted a cross-sectional survey approach, where 228 respondents were involved in the study. Hypotheses linking Human Resources Management practices and supply chain flexibility were developed and tested using structural equation modeling (SEM) technique. The findings indicated that selective hiring practices, job security practices, and teamwork practices have significant positive relationships with supply chain flexibility. The findings imply that employees with appropriate skills, knowledge, abilities and cultural fit, who are highly motivated through job security and compensation practices, are important in ensuring supply chain flexibility in hotel settings. Therefore, policy makers, directors, and managers in the hotel industry are urged to manipulate human resources management practices as strategies to increase supply chain flexibility as strategic measures to satisfy customers and win their loyalty. However, despite its importance, the study suffers from several limitations such as only five Human Resources Management practices were considered, use of cross-sectional survey strategy and self-reported data from hotel managers. The study calls for future studies to examine Human Resources Management practices in relation to supply chain flexibility in other service industries such as banks, schools, etc. to compare the results. Again, future studies can use other Human Resources Management practices to bring more insight on the Human Resources Management /Supply Chain Management interface.

Key Words: HRM practices, Supply chain flexibility, Supply chain Performance, Hotel industry

Introduction
Global business environment currently necessitates businesses to have creative and innovative alternatives for the purpose of realizing operational efficiency and effectiveness of their business operations. One of the ways of realizing efficient and effectiveness is the proper management of supply chain activities (Muntaka, Haruna and Mensah, 2017; Ellinger and Ellinger, 2014; Marwah et al., 2014). Gibson et al (2005) defines supply chain management (SCM) as various management approaches used to integrate and coordinate flow of materials, information, finished goods, and finances from the source to the final destination at the right time, right locations, and in the most efficient way so as to satisfy customer demands. Therefore, every business is part and parcel of a supply chain because there is no single business that can run without being part of SCM either at operational level or at strategic level of implementation (Gunasekaran et al. 2004).

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The operational level is the traditional commerce where companies obtain raw materials transform these materials to get final goods and these goods are distributed to customers. Strategic level entails the ability of the companies to be customer centric. However, achieving SCM success in organizations has become one of the major challenging issues today due to the growing diversity and uncertainty in the business environment. Therefore, businesses respond to it by encouraging firms to embrace supply chain flexibility (SCF). Supply chain flexibility entails the ability of the member(s) of the supply chain to alter or respond to environmental uncertainty with little penalty in time, effort, cost or performance (Muntaka, Haruna and Mensah, 2017; Dhiaf and Ben Abdelhafid and Jaoua, 2012). Thus, importance of SCF is seen in its attempt to address short term variations in demand or supply and to tackle external interruption which leads to customer satisfaction.

Previous studies on supply chain flexibility concentrated much in manufacturing industry (Anhoa et al, 2014; Gosling, Naim and Towill, 2013), however recently there has been a shift towards researching supply chain flexibility in service sectors (Elgazzar and Elzarka, 2017; Tsai, 2012; Zhang et al, 2015; Huang et al; 2012) due to the importance of the service industry in the economy. For example, World Fact book provides that service sector contributes to more than 75% of the United States of America (USA) Gross Domestic Product (GDP) in 2011. This is contributed by around 70% of the USA population being employed in the service industry, at the same time service sector in India contributes around over 50% to the GDP. In reality, Organization for Economic Cooperation and Development (OECD) (2017) argues that service industries constitute around 70% of the aggregate production and employment worldwide. One of the services that people consume worldwide is tourism services. In Tanzania for example, WTTC (2017) reported that tourism services lead to important contribution to GDP to the tune of Tzs 13,097.8 billion in 2016 (13.3% of GDP) and it is expected that this contribution grows by 4.1% to 13635.0 billion (13.1% of GDP) in 2017. However, in tourism businesses people have to travel from within and different part of the world to see the attractive natural resources and historical sites, and therefore hotels become one of the most important requirements in their stay at the destination (Orfila-Sintesa et al., 2005).

Furthermore, the hotel industry in Tanzania is characterized by small and medium hotels with few large hotels. Concurring with international classification of hotels, where star rating is used, Tanzania has so many one star, two star and three stars hotels as compared to four star and five star hotels. One star, two stars and three stars hotels are considered to be the small and medium hotels while four stars and five stars are considered to be large hotels (Wilbard, 2017). Hotel industry in Tanzania is performing better and better year after year. This is due to the increased influx of tourist in the country, for example in the year 2016, tourist amounted to a total of 1,020,816 visited the country, this number is far bigger than 924,442 tourist who visited the country in 2015, which make 10.42% increase in tourist influx into Tanzania (URT, 2016).

Due to the unique importance of the hotel industry in the tourism sector in general, and the fact that it is fundamental to the provision of all other tourism services to the tourist when they reached their destination (Orfila-Sintesaset al, 2005), this study made a choice of the hotel industry as a suitable setting for the service economy because of diversity of services in the tourism sector. Furthermore, the choice of hotel industry is justified by the fact that it includes other heterogeneous and homogeneous companies in production and operation so that they are able to offer services to customers. This is also due the fact that hotel sector creates both the
direct and indirect economic impact with the local area as a result of decision made by tourist to stay at the particular hotels (Bresciani, Thrassou and Vrontis, 2015). In addition, studies that attempted to examine supply chain flexibility in service sector such as hotel industry are found much in developed countries and very few studies in developing countries such as Tanzania. Therefore this study chooses hotel industry as a context to examine the link between supply chain flexibility and HRM practices as an avenue to compare results in different contexts. Furthermore, researchers in hotel management argued that it is important to use hotel industry as a research context in the future (Wilbard, 2017).

Despite the importance of the hotel industry in Tanzania, hotel industry still face difficulties in fulfilling customer request, planning and forecasting customer demand, delivery of poor quality services, inflexibility of the hotel operations, costly operations and unreliability of their services just to mention few (Wilbard, 2017; URT, 2015; Kazimoto, 2014). Therefore, these problems can be eliminated or at least reduced if human resources management practices within these hotels is manipulated to the maximum to ensure supply chain management success dimensions such as SCF is equally attained. Supply chain flexibility has become important dimension in the supply chain management today with variations. Nevertheless, scholars have given reasons to these variations as being caused by failing to incorporate human resources in SCM strategies (Ellinger and Ellinger, 2014; Hohenstein et al., 2014) such as SCF. However scholars have to come to an agreement that implementation of SCM strategies lies on the human behavior in those supply chain systems (Bendoly et al., 2006). As a result HRM has become a top agenda among researchers attempting to rationalize efforts to achieve efficiency and effectiveness by leveraging human capital in the supply chain. In spite of the increased importance of HRM/SCM research, yet many issues in the HRM/SCM interface remains unexplored (Fisher et al., 2010; Hohenstein et al., 2014). In fact, the way HRM practices influences SCF in the hotel settings have received no attention by researchers.

However, not all HRM practices have the same influence over organizational outcomes such as supply chain flexibility (Pfeffer, 1998). This is due to that fact that some HRM practices have been confirmed to influence organizational outcomes while others have not. Accordingly, Resources Based View (RBV) theory suggest that for firms to achieve SCF they must have resources and capabilities that are value, rare, inimitable and non-substitutable (VRIN) criteria (Barney, 1991). Furthermore, HRM practices contribute differently to VRIN of resources. Yet, AMO theory contend that for organizations to achieve superior performance they need to ensure that they have employees with appropriate skills, abilities, motivated and that these employees are given chance to execute their skills, knowledge and experience (Hutchinson et al, 2013; Appelbaum et al., 2000). So appropriate choice of HRM practices is needed to understand how they influence RBV and AMO eventually organizational outcomes such as SCF. However, proper choice of HRM practice should be the one that provides employees with skills, abilities, experience, motivation and opportunity to participate thus motivation theories becomes important in guiding this choice.

As a result, this paper presents motivation theory as developed by Alderfer (1972) as a help to guide choices of appropriate HRM practices. Alderfer (1972) argues that human needs are conceptualized around three levels which are needs based on human existence (physiological needs), needs associated with interpersonal relationship (relatedness) and needs that are based on the development of human potential and capabilities (growth). Thus, in the same line of
argument, several HR practices provide support for employees to satisfy these needs. For example, satisfactory compensation is important for individuals well being and physiological needs. Employees’ relatedness needs is associated with employee job security, selective hiring practices, employee training practices, job involvement practices, talent management and communication. Growth related needs is associated with career development, employee training, and work life balance (Liu, 2004). All of these HRM practices mentioned influences employees’ knowledge, skills and ability (KSAs), motivation and opportunity to participate. Thus, HRM practices chosen to understand the determinants of SCF include selective hiring practices, compensation management practices, job security practices, participation practices and team work practices. Thus, the study saw an importance to determine the influence of these practices on SCF in the hotel industry. Thus, the study contributes to the HRM/SCF link by investigating the effects of HRM practices on SCF and exploring the role of individual HR practice on SCF. As a result, managers, directors and policy makers get enlighten to provide HRM policies and other organizational policies that enhance competitiveness in organization by being responsive to disruption and hence satisfy customers efficiently and effectively. The paper then discusses the study’s theoretical background and hypotheses and thereafter methodology of the study is presented. Next, the study provides presentations of statistical outputs and interpretation of the study findings. Finally, the study discusses the theoretical and managerial implications of the study so as to draw conclusions.

Theoretical Background and Research Hypotheses
The study of the SCF in relation to HRM practices can be guided by several theoretical perspectives such as RBV theory. Ability, Motivation and Opportunity to participate (AMO) theory and Supply Chain Operations Reference (SCOR) Model. In RBV theory, firms attain competitiveness such as SCF by acquiring and possessing resources in their domains that are firm specific and not available to competitors (Barney, 1991). Examples of resources firms can own are physical resources such as technology, equipment, geographical location, human resources, and organizational resources such as structure, social relations within organizations and between organizations. However, scholars have added intangibility of resources in the list of resources in the RBV theory (Kamasak, 2017). Intangible assets are assets that lack physical substance such as skills, knowledge, experience, HRM practices, goodwill etc. Intangible resources such as HRM practices have greatly increased the ability of the firm to acquire and develop valuable resources. This study used selective hiring practices (SH) as a strategy firms uses to acquire these HR resources.

Again, AMO theory contends that employees abilities, motivation and opportunity to participate in organization influences organizational outcomes (Appelbaum et al., 2000; Hutchinson et al., 2013) such as SCF. This is a motivational theory that provides managers to acquire HR resources motivate them and give them opportunity to participate. Employees’ ability (A) can be obtained through selective hiring to ensure that firms obtain employees that have the required skills, ability, experience and the cultural fit. In addition employee training practices are done to ensure that employees sharpen their skills, abilities and culture within their firms. Motivation (M ) is influenced by extrinsic (eg financial) and intrinsic rewards (eg interesting work) performance reviews, feedback, career development, employment security, and work–life balance. O (opportunity) is influenced by involvement initiatives, team working, autonomy, communication, job design and job rotation. This study used employee job security (JS), compensation practices
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(CP), participation practices (PP) and teamwork practices as firms’ strategies companies use to influence SCF.

Again, SCOR model developed by group of consultants in collaboration with 69 members from manufacturers, logistics, distributors and software solution suppliers provides another theoretical lens in this study. Yan, Li and Qui (2007) argue that SCOR model provides a framework to evaluate supply chain performance in organizations by focusing on five key management processes: plan, source, make, deliver and return from suppliers to customers. Central to these processes are operational strategy, materials, work and company’s flow of information. To measure performance of firms in the supply chain, companies should use these criteria: supply chain reliability, responsiveness, flexibility, cost and assets (Yan et al., 2007). These measures reflect the broader measures of supply chain performance that is efficiency and effectiveness. In this paper only flexibility dimension of the supply chain performance is considered. SCF entails the ability of the firms to enhance adaptability, alignment and agility (Lee, 2004). Adaptability is concerned with capability of the supply chain to squeeze supply chain design, change supply networks strategies and technologies to meet structural changes in the market. Alignment is concerned with the ability of the supply chain to persuade others actors in the supply chain to work for the interest of the company to enhance supply chain performance while agility refers to the ability of the supply chain to respond to short term variations and uncertainty in demand and supply and ability to manage external disruption with little penalty in cost and time (Tiwari et al, 2015). Duclos, et al (2003) argues that SCF consists of six components operation systems, market, supply, organizational, logistics and information system flexibility. Kumar et al (2006) defines SCF as “the ability of supply chain partners to restructure their operations, align their strategies, and share the responsibility to respond rapidly to customers’ demand at each link of the chain, to produce a variety of products in the quantities, costs, and qualities that customers expect, while still maintaining high performance.” This denotes that SCF is a multidimensional concept and therefore researchers have not come to an agreement to define what the SCF is and how to measure it.

As a result, scholars have studied the concept from different perspectives. For example, a recent study on SCF advances that SCF cannot be determined by infrastructure framework, that means there are other important factors that determine SCF. The same study concluded that there was a mediation effect of delivery dependability and time to market on the relationship between infrastructure framework and SCF (Al-Shboul, 2017). Gligor et al (2013) in their paper concluded that SCF depends on alertness, accessibility, decisiveness, swiftness, and flexibility. Alertness being the ability to rapidly notice changes, opportunities and threats, accessibility being the ability to have correct data, decisiveness being the ability to make proper decisions at the right time, swiftness being ability to implement decisions quickly, and flexibility being the ability to modify the range of tactics and operations to the extent needed. All of these factors depend on the human capital and therefore can be harnessed through proper manipulation of HRM practices. In addition, Cohen et al (2007) found that supply chain behavior is well enhanced by proper incentives to employees. Thornton et al (2013) proposed employee work behaviors important for supply chain relationship. These behaviors cannot be inculcated to employees without being addressed in the HRM practices and policies of the companies. Fu et al.’s (2013) in their empirical study concluded that HRM is main enabler of supply chain performance via team formation and implementation. Ellinger and Ellinger (2014) in their conceptual paper aimed at addressing shortage of supply chain professionals conclude that required skills of supply chain
professionals enhances performance of supply chain management activities. Marwahet al. (2014) on their study of human metrics affecting supply chain performance found that trust and commitment, joint strategy and planning, and transparency and honesty in information sharing were the factors affecting supply chain performance. Okeudo (2012) found that HRM practices such as training and development, recruitment and selection, reward management and performance appraisal were positively related with logistics capabilities such as integrated logistics services, information and communication technologies, flexible supply chain solutions and industry specific logistic expertise in Nigeria. Swart, Hall and Chen (2012) in their conceptual model of human performance in SCM showed the possibilities that HRM practices when taken in its holistic view has a great chance of influencing supply chain performance such as SCF. The literature review conducted so far highlights important research gap that studies on the HRM/SCF interface have received little attention by researchers and that many of these studies are at conceptual or incomplete stage. That means a rigorous and systematic research is required. Based on these studies, this paper aims to advance on HRM/SCF interface by investigating the effect of HRM practices on SCF using Tanzania Hotel industry settings.

Therefore, following the discussion above, this study conceptualize that SCF depends on the HRM practices. The proposed study includes selective hiring (SH), employee job security (JS), and compensation practices (CP), participation practices (PP) and teamwork practices as independent variables against SCF as dependent variables. The conceptual framework indicates that knowledge, skills, abilities, motivation and opportunity to participate of supply chain managers, directors, purchasing managers may influences supply chain flexibility. The contribution brought about by these HRM practices is that employees with appropriate skills, knowledge, abilities, values and cultural fit are obtained through proper selective hiring practices. Thereafter, employees through job security and compensation practices get the required support they need so as to fulfill the vision and mission of the companies. These give much motivation to execute various organizations tasks and responsibilities and to be flexible to respond to uncertainties that arise in the supply chain. Again through participation and team work practices employees are able to participate in various organizations’ decision making forums to solve work related problems and to organize work activities.

**Figure 1: Conceptual Framework of the Study**

**Participation practices**
Participation practices may influence SCF. HRM practices that allow employees to make decision together with the management in issues relating to cost, quality, operational and
suggestion of improvement are important for the performance of the organization. Amah and Ahiauzu (2013) through their correlational study argues that employee participation have positive relationship with organizational effectiveness, profitability, productivity and market share. Park (2015) argued that organizational commitment is influenced by employee participation through perceived organizational support. This means that participation practices is an important concept in enhancing competitiveness of organization. Huo et al (2015) concluded that participation practices influences internal integration, supplier integration and customer integration. Therefore, the following hypothesis was proposed

**H1: There is positive relationship between HR participation practices and SCF**

Knowledge, skills and abilities can determine SCF. Studies have shown that organisations obtain and possess employees with appropriate knowledge, skills and abilities through selective hiring practices. Selective hiring is an important practice that helps the firm to get right people, with attractive quality, knowledge and abilities. The purpose of the selective hiring is to get employees that fit with organisational values and culture. Pfeffer (1998) argues that hiring the right employees increase the employee productivity improve organisational performance and reduce employee turnover. Kim and Ployhart (2013) argued that selective staffing and internal training have positive relationship with firm profit growth through their impact on firm labour productivity. MacDuffie (1995) argued that in RBV theory employees’ skills mirror their rooted firm –specific knowledge and competencies, which is an important for competitiveness and unique for firm specific and this kind of knowledge helps firms to maintain supply chain flexibility. Therefore, the following hypothesis was proposed

**H2: There is positive relationship between selective hiring practices and SCF**

Compensation practices can influence SCF. This is because compensation practices influences motivation level of employees. The more employees are motivated the more they contribute to the success of the company. Namasivayan, Miao and Zhao (2007) in their study of compensation practices of management and non management employees revealed that for the management employees, there was a direct relationship between indirect compensation practices and hotel performance, while for the case of non management employees there was a partial relationship between direct compensation and hotel performance. Therefore, the appropriately designed compensation system that encourages individual to increase productivity is a source of competitive advantage. This is due to the fact individual becomes more motivated and they have the passion to make more money. Therefore, the following hypothesis was proposed

**H3: There is positive relationship between compensation practices and SCF**

Pfeffer (1998) argues that employee job security provides assurance, commitment and employee satisfaction. Job security involves two way traffic: firstly, a firm has to send a very clear message that jobs are secure, then, employees must also believe that the message is true, correct and believe it. Once employees believe that they will be satisfied with their jobs, they will put much commitment to the organisational activities of managing supply chain activities. Furthermore, Pfeffer (1998) argues that companies that recognize the importance of ensuring employee job security invest in it for the purpose of increasing performance. However, the extend at which employee job security determines supply chain performance can be influenced by several factors such as worker characteristics, job characteristics, organisational change and job technology change. Literature shows that there is positive relationship between job security and supply chain performance. For example, Ahmad and Schroeder (2003) found that among others, job security
have indirect effect on operational performance through organisational commitment. However, another study by Michie and Quinn (2001) concluded that job security is negatively correlated with corporate performance when examining labour market flexibility in over 200 manufacturing UK firms. Again Kraimer et al. (2005) found that perceived job security relates positively with benefits perceptions and performance. Therefore, the following hypothesis was proposed

\[ H4: \text{There is positive relationship between job security practices and SCF} \]

Teamwork practices may influence SCF. Teamwork practices entails the group of employees who work together to achieve the same goals and objectives for purpose of achieving organizational goals such as customer satisfaction and firms’ effectiveness. Teamwork comes in various formats such as self directed work groups, and problem solving teams (Hutchinson et al., 2013). Teamwork is very important as it helps employees to work efficiently by encouraging collaboration, improving employee relations, increasing accountability, and as a source of learning opportunities. All of these increase performance of organizations and supply chains. Agwu (2015) concluded that teamwork is positively related with employee performance in the Bonny Nigeria Liquefied Natural Gas Plant. Kelemba, Chepkilot and Zakayo (2017) argued that to enhance workplace democracy, change management, innovation and creativity enhancement and effective decision making teamwork practices are essential and that there associations between teamwork practices and employee performance. In this case SCF can be enhanced because in teamwork environment employees in different organizations who are part of the supply chain collaborates together to ensure that disruption and sudden variation of internal and external demands are accommodated. Ghorbanhosseini (2013) concluded that there is a positive relationship between team working and organizational commitment via human capital. Menon (2012) suggested that team work arrangements in organizations can increase customer focus which can be achieved by having teams for internal coordination, cross-functional teams and teams for external coordination with supply chain partners. This can lead to organizational ability to respond to disruptions and change in demands. Therefore, the following hypothesis was proposed.

\[ H5: \text{There is positive relationship between teamwork practices and SCF} \]

**Methodology of the Study**

**Population, Sample and data collection**

A population for this study was the total number of hotels operating in Tanzania that have been registered in the website https://travel.jumia.com, a site that shows tourist the hotels, location of the hotel, price of the services, and important contact for the hotels. Accordingly, jumia travel records a total of 1432 hotels as at August 10, 2017. Out these 536 hotels had been classified as three star, four star and five star hotels. Taking into consideration, the focus of the study as to examine the influence of HRM practices on supply chain flexibility, then only three stars hotels to five stars hotels were considered making a population of this study to be 536 hotels. This was due to the fact that three stars to five star hotels have great capabilities to have well focused management practices, policies and procedures such as HRM practices and supply chain management practices, because these hotels are medium to large hotels (Felix and Clever, 2014).Furthermore, this study used survey method as a strategy for data collection. The target sample was managers in tourist hotels who are involved in day to day with operations of the hotels in four regions of Tanzania namely Arusha, Dar es Salaam, Kilimanjaro and Zanzibar. The choice of these locations was due to the fact that tourism activities are highly concentrated in these areas (Wilbard, 2017). Before questionnaire was distributed to the respondents, it
underwent content and construct appropriateness by conducting interview to the operations manager, logistics manager, human resource managers, and procurement managers of hotels in Dar es Salaam for purpose of discovering and understanding issues related to HRM practices and supply chain flexibility in Tanzanian hotel context. The information obtained was used in the pretesting and piloting exercise. Pretest of the questionnaire was done to three managers from Golden Tulip, Serena, and Blue Pearl hotels and two other academicians in the field of HRM and supply chain management. Piloting exercise was conducted to 50 hotels managers in Dar es Salaam using convenience sampling strategy where information was obtained to revise and improve the instrument for data collection. Improved questionnaire was then sent to 341 hotel managers in Arusha, Dar es Salaam, Kilimanjaro and Zanzibar. However, due to unavailability of respondents 240 hotel managers participated in the study making a response rate of 70.4%. This was considered sufficient for subsequent analysis because other researchers in the nearly the same setting obtained roughly the same response when surveying hotel managers (Peters and Buhalis, 2004).

**Variable measurements**

**HRM practices:** HRM practices considered in this study were based on the following dimensions: selective hiring, participation, compensation, job security and teamwork practices. To measure selective hiring practices, questions items were adopted and modified from the study by Boxall and Macky (2007), Wright (2003) and Sabwani (2015). To measure participation and teamwork practices questions items were adopted and modified from Singh (2004) and Hainess, Jalette and Larose (2010). To measure compensation and job security practices questions items were adopted and modified from Albahussain et al (2016). Response to these items were on the likert scale ranging from 1 = strongly disagree to 7 = strongly agree.

**Supply Chain Flexibility:** To measure supply chain flexibility the study adopted a measure by Cirtita and Glaser – Segura (2012) that among other things considered ability of the hotel to manage supply chain in terms of identifying, supplying and offering services, backorder, meet customer service needs and ability to plan, source, make and deliver unplanned order with minimum penalties. Again Response to these items were on the likert scale ranging from 1 = strongly disagree to 7 = strongly agree.

**Multivariate Analysis Assumptions**

Furthermore data were checked for multivariate assumption such as missing data, normality, influential outliers and multicollinearity. The study reports absence of missing data as respondents who did not fill the questionnaire were humbly requested to do so when picking them by the research assistants. Normality of data was checked by calculating skewness and kurtosis. As argued by scholars for a normal distribution data skewness and kurtosis values should be approaching zero (Tabachnick & Fidell, 2012). Influential outliers were checked via standardized score exceeding z ± 3 using SPSS descriptive command and Mahalanobis distance (Mahalanobis$D^2$) using SPSS regression command. As a result of this exercise 12 data sets were found to be outliers and were removed from the subsequent statistical analysis. Finally multicollinearity was examined by checking inter-correlations among items that should not exceed 0.9 (Kline, 2011).
Exploratory Factor Analysis (EFA)

Prior to interpretation of EFA results, KMO and Bartlett’s test need to be examined. Results in Table 1 indicate that sample used in the study were adequate as KMO is 0.778 which is greater than the recommended KMO of 0.05 and EFA results are distinct and reliable. Bartlett’s test of sphericity confirms that it was suitable to use EFA as there are associations among items because correlation matrix is not identity matrix (P-value < 0.05). To extract dimensions of each construct, EFA with varimax rotation was performed with all items loaded together both for the supply chain flexibility and HRM practices. The EFA process leads to the deletion of some items that were not found to contribute to the explanation of the constructs. These items were deleted due to poor factor loadings less than 0.4 on their latent variable and others cross loaded to more than one factor as suggested by Lee et al (2010). For HRM practices the following items were deleted “at this hotel employee recruitment is based on the attitude to work in a team”, this hotel provides employees with inspiring job contents, at this hotel, reward systems is attached to performance, and there is clear employee suggestion program. No item was deleted for the items measuring supply chain flexibility. The final EFA results are presented in Appendix 3.

Table 1: KMO and Bartlett's Test

<table>
<thead>
<tr>
<th></th>
<th>Kaiser-Meyer-Olkin Measure of Sampling Adequacy.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bartlett's Test of Sphericity</td>
<td>Approx. Chi-Square</td>
</tr>
<tr>
<td></td>
<td>0.778</td>
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<tr>
<td></td>
<td>3598.040</td>
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<tr>
<td></td>
<td>210</td>
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<td>0.0001</td>
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</table>

Confirmatory Factor Analysis (CFA): Reliability and Validity

The study performed a series of analyses to check the reliability and validity of the construct. The study tested reliability and validity of the construct following an advice of Hair et al., (2010) by using Confirmatory Factor Analysis (CFA) and later calculating Average Variance Extracted (AVE) and Construct Reliability Estimates. All values were calculated were higher than the recommended values (Hair et al., 2010). Unidimensionality of the scale was determined using CFA with AMOS 22. The CFA findings show that all items had significant loadings on the items on their respective constructs they were intended to measure, demonstrating construct unidimensionality. Convergent validity assessment starts with looking at EFA results where by existence of convergent validity is when Eigen value exceeds the threshold of 1.0 (Hair et al, 2010; Chen and Paulraj, 2004). The Eigen Value for the factors in this study ranged from 1.854 to 5.113. In addition, CFA provide loadings that are statistically significant and above the threshold value of 0.5 confirming convergent validity (Hair et al, 2010, Tami, 2011). Again for discriminant validity, AVE results in Table 2 were compared with squared inter-construct correlation, all AVE results were greater than the squared value of inter – construct correlation suggesting that no problem with discriminant validity for the model with six constructs (Hair et al., 2010).

More over construct reliability for SCF, PP, CP, JS, SH and TW were computed using the formula given by Hair et al (2010) that $CR = \frac{(\sum_{i=1}^{n}L_i)^2}{(\sum_{i=1}^{n}L_i)^2 + (\sum_{i=1}^{n}e_i)}$, where $L_i$ represent standardized factor loadings and $e_i$ is the error variance for the construct. The results in Table 2 indicate that CR values are greater than the recommended threshold of 0.7, hence indicating good reliability which indicates satisfactory internal consistency. In addition Cronbach alpha was also computed.
for each variable under study and the results are shown in Table 2, as well all values are above 0.7 indicating satisfactory internal consistency (Huo et al, 2015; Panayides, 2013).

**Table 2: Standardized Factor Loadings, Average Variance Extracted and Reliability Estimates**

<table>
<thead>
<tr>
<th>Items</th>
<th>Descriptions</th>
<th>Loadings t-value</th>
<th>AVE</th>
<th>CR</th>
<th>α</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCF1</td>
<td>This hotel has highest ability to identify and supply high volumes of service in appropriate time</td>
<td>0.79 16.011</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SCF2</td>
<td>This hotel has highest ability to back order stock items in appropriate speed</td>
<td>0.87 19.42</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SCF3</td>
<td>This hotel has highest ability to meet customer service needs at any time</td>
<td>0.93 16.84</td>
<td>73%</td>
<td>0.99</td>
<td>0.911</td>
</tr>
<tr>
<td>SCF4</td>
<td>This hotel has highest ability to plan, source, make and deliver unplanned orders with minimal cost penalties</td>
<td>0.811 16.84</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PP1</td>
<td>Employees in this organization are allowed to make decisions related to cost and quality matters</td>
<td>0.895 15.35</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PP2</td>
<td>Employees in this organization are asked by their superiors to participate in operations / production related decisions</td>
<td>0.876 16.74</td>
<td>75%</td>
<td>0.98</td>
<td>0.897</td>
</tr>
<tr>
<td>PP3</td>
<td>Employees are provided opportunity to suggest improvements in the way things are done.</td>
<td>0.817 15.35</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SH1</td>
<td>At this hotel employee recruitment is based on organizational values</td>
<td>0.895 17.31</td>
<td>74%</td>
<td>0.99</td>
<td>0.917</td>
</tr>
<tr>
<td>SH2</td>
<td>At this hotel communication skills is emphasized much during recruitment</td>
<td>0.819 16.32</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SH3</td>
<td>During recruitment individuals with computer skills are given much priority</td>
<td>0.891 19.14</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SH4</td>
<td>This hotel prefer individuals with strong analytical skills during employee recruitment</td>
<td>0.84 17.10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CP1</td>
<td>At this hotel, employee rewards system is based on job/task</td>
<td>0.661 11.20</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CP2</td>
<td>At this hotel, employee rewards system is based on job/task</td>
<td>0.885 16.572</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CP3</td>
<td>At this hotel, employee rewards system is based on job/task</td>
<td>0.847 16.32</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CP4</td>
<td>At this hotel, employee rewards system is based on job/task</td>
<td>0.855 16.57</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JS1</td>
<td>At this hotel employees are ensured of on the job training of skills related to their jobs</td>
<td>0.868 21</td>
<td>82%</td>
<td>0.99</td>
<td>0.930</td>
</tr>
</tbody>
</table>
Results
Using maximum likelihood estimation method in Structural Equation Modeling (SEM) the study estimated the proposed relationship in the proposed model. We first tested the measurement model and then the structural model using AMOS as suggested by Anderson and Gerbing (1988). The findings on the goodness of fit indices indicated that Ch- Square = 352.393 with degrees of freedom = 174, RMSEA = 0.067, NFI= 0.905, CFI= 0.949, RFI=0.886, PRATIO =0.829, PNFI=0.750, PCFI = 0.787 and SRMR = 0.0523 better than the proposed benchmark by Hu and Bentler (1998). These results suggests that the model is accepted and it can be able to explain the relationship between SCF and HRM dimensions.

| JS2       | At this hostel employees can stay in position as long as they wish | 0.961 | 23.23 |
| JS3       | It is difficult to terminate the employees’ services in this hotel. | 0.888 | 22.23 |
| TW1       | Management highly encourage teamwork spirit | 0.822 | 16.91 |
| TW2       | At this hotel there is problem solving teams | 0.94  | 17.91 |
| TW3       | The hotel have put atmosphere where employees can form self directed work groups | 0.877 | 18.91 |

Note: t-values were significant at 0.01; Ch- Square = 352.393, Degrees of freedom = 174, p=0.0001, RMSEA = 0.067, NFI= 0.905, CFI= 0.949, RFI=0.886, PRATIO =0.829, PNFI=0.750, PCFI = 0.787, SRMR = 0.0523
Again results in Table 3 indicate hypotheses testing results to check whether the proposed relationship by the model above are statistically significant. Results shows that the participation practices influences supply chain flexibility negatively, however this relationship is not statistically significant (path coefficient = -0.177, t-value = -1.266, p - value =0.205). Selective hiring practices is positively related with supply chain flexibility and the relationship is statistically significant (path coefficient =0.123, t-value = 2.331, p-value = 0.020). Compensation practices is positively related with supply chain flexibility and the relationship is statistically significant (path coefficient = 0.201, t- value = 3.220, p-value =0.001). Job security practices is positively related with supply chain flexibility and the relationship is statistically significant (path coefficient = 0.155, t-value =2.888, p-value = 0.004). Team work practices is positively related with supply chain flexibility , however the relationship is not statistically significant (path coefficient = 0.010, t-value =0.176, p-value = 0.860). Therefore, the study has found that there is significant positive relationship between selective hiring, compensation, and job security practices and supply chain flexibility in tourist hotel industry

Table 3: Hypotheses Testing Results

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Path</th>
<th>Path Coefficient</th>
<th>Std Error</th>
<th>Critical Ratio</th>
<th>P-value</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>PP → SCF</td>
<td>-0.077</td>
<td>0.061</td>
<td>-1.266</td>
<td>0.205</td>
<td>Not supported</td>
</tr>
<tr>
<td>H2</td>
<td>SH → SCF</td>
<td>0.123</td>
<td>0.053</td>
<td>2.331</td>
<td>0.020*</td>
<td>Supported</td>
</tr>
<tr>
<td>H3</td>
<td>CP → SCF</td>
<td>0.201</td>
<td>0.062</td>
<td>3.220</td>
<td>0.001**</td>
<td>Supported</td>
</tr>
<tr>
<td>H4</td>
<td>JS → SCF</td>
<td>0.155</td>
<td>0.054</td>
<td>2.888</td>
<td>0.004**</td>
<td>Supported</td>
</tr>
<tr>
<td>H5</td>
<td>TW → SCF</td>
<td>0.010</td>
<td>0.058</td>
<td>0.176</td>
<td>0.860</td>
<td>Not supported</td>
</tr>
</tbody>
</table>

*P<0.05, **P<0.01
Discussion
The findings show that selective hiring practices influence positively supply chain flexibility. The importance of selective hiring practices is to make sure organizations get employees with required skills, knowledge, abilities, right values and culture and these improve performance such as supply chain flexibility (Pfeffer, 1998; Kim and Ployhart, 2013). This is important as employees are at the core of everything in an organization, as they facilitate and respond to changing supply chain systems as current business need. This finding is consistent with findings by Singh and Acharya (2014) who reported that supply chain flexibility is influenced by delivery flexibility, volume flexibility, demand flexibility, coordination flexibility and information system flexibility of which central to these lies human elements such as skills, knowledge and abilities. In addition, the findings are consistent with the findings by Dhiaf et al (2012) who argued that to enhance supply chain flexibility in both intra and inter-firm, organization need to have HRM practices that enhances skills, knowledge and abilities that can be redeployed quickly to meet changing needs of customers. This can be in terms of skills, functional, behavior and HRM practices. In addition the findings are consistent with findings by Okeudo (2012) who reported that recruitment and selection that emphasizes in skills, knowledge, abilities, cultural values and organizational fit enhances performance and flexibility in terms of meeting customer needs in real time. Recruitment and selection enables business firms to acquire the appropriate human resources in line with its aims and objectives (Dessler, 2013). Effective hiring also allows firms to respond to market opportunities and threats in a proactive manner in the dynamic markets.

The findings of the study have found that compensation practices influence positively supply chain flexibility. This is because for firms to be flexible means additional duties and tasks must be performed by employees in the case of emergencies or customer needs that were actually not planned for. This finding is consistent with the findings by Menon (2012) who reported that satisfaction with supply chain performance is attributed by specific HR practices such as flexible
job descriptions, teamwork, training, and performance metrics linked with rewards system of the organizations. In addition, the findings of the study are consistent with the findings by Gowen and Tallon (2003) that to enhance supply chain practices through HRM, companies must encourage support from employees and management support to employees so as to remove barriers in the implementation of supply chain management practices. Management support to employees means that hotels must be able to provide fair rewards to employees that is based on their jobs/task, experience, and team performance. Also management should encourage a culture where all employees discuss their reward systems with management at a particular interval of time. The findings is consistent with Namasivayan et al. (2007) who reported that management and non management employees compensation have significant effect on hotel performance such as supply chain flexibility.

The findings of the study have found that job security practices influences positively supply chain flexibility. Job security practices include employee assurance of trainings of skills related to their jobs, staying in the position, and fair procedure of termination of employee service. If these practices are encouraged vividly then supply chain flexibility can highly be attained. This is because employees will have skills, confidence of performing their duties and will be highly motivated to perform according to vision and mission of their hotels. This findings is consistent with the findings by Pfeffer (1998) who reported that successful organizations need to embrace seven organizational practices namely job security, selective hiring, compensation contingent on performance, self-managed teams and decentralization of decision making, reduced status differential and information sharing. Accordingly job security motivates employees to offer more efforts to organizational vision, mission and objectives. Therefore employees who are assured of their employment are more likely to respond quickly to supply chain flexibility dimensions such as identifying and supplying high volume of services, ability to backorder stock, ability to meet customer service needs and ability to plan, source, make and deliver unplanned orders at the required time and minimal cost penalties. This finding is consistent with the findings by Imran, Majeed and Ayub (2015) who reported that organizational productivity is likely to increase at highest probability when management ensures job security and organizational justice in Pakistani.

In addition the findings are consistent with AMO theory (Appelbaum et al., 2000). AMO theory postulates that superior performance of firms is a function of employees with appropriate skills, who are highly motivated and are given opportunity to perform. Since the findings have shown that selective hiring practices, job security and compensation practices are related positively with supply chain flexibility, then the results are consistent with the theory. Furthermore, the findings are consistent with RBV theory (Barney, 1991). This is because competitive advantages of firms are attained when firms have unique resources and capabilities that are firms specific and that cannot be easily copied by other firms. Therefore firms’ abilities to exert selective hiring practices mean they will be able to acquire employees with appropriate skills, knowledge and cultural fit ready for their business environment. In addition, firms with ability to exert job security practices and compensation practices mean that those acquired employees will be retained and motivated to perform as far as company vision and mission is concerned.

**Theoretical Implications**

Responding for more research on the HRM/SCM interface (Fisher et al, 2010, Hohenstein et al., 2014; Huo et al, 2015), this study contributes to the literature in the following ways: First, very
few studies have done research on the effect of HRM practices on SCF. This study fills this gap by providing empirical evidence on the relationships between HRM practices that aim at bringing new employees with appropriate skills, knowledge and cultural fit via selective hiring practices and motivating these employees via job security and compensation practices for the purpose ensuring hotels perform better and later SCF. In this way, managers play important roles when exerting these practices to their organizations so as to nurture the required skills, knowledge, abilities and cultural fit. In reciprocal, managers have a duty to ensure that employees get the necessary support through compensation practice and the feelings that employees have on whether their job positions are secure or not. In actual fact, HRM practices and SCF are strategies if we borrow Shub and Stonebraker (2009) ideas. Therefore, this study has shed light to the HRM/SCF interface.

Secondly, taking the call made by Winkler (2010) that future research should focus on practical implementation of strategic supply chain network and how these supply chain configuration are influenced by modern leadership. In addition, responding to the call for more research in hotel industry by Bressciani et al (2015), and Wilbard (2017). This study examined the determinants of SCF from HRM perspectives in the hotel industry in Tanzania. The study has found that to achieve SCF in organizations human resources supports is very important and this come in the form of skills, knowledge and abilities these employees have to explain the ability of the organizations to respond to uncertainties it faces when serving customers. Again central to this is job security and compensation practices that acts as motivator to trigger and win employee skills, knowledge and abilities to the full maximum. Thirdly, although conceptual framework was tested only in one industry, the hotel industry, the results shows that selective hiring practices, job security practices and compensation practices are significant are in explaining supply chain flexibility in hotels while participation practices and teamwork practices were not significant in explaining the supply chain flexibility of hotels in Tanzania. Therefore, this calls for more research to be done in other industry to compare the results.

Managerial Implications
Scholars have agreed that human elements in the supply chain management are very important for competitive advantage of the companies (Ellinger and Ellinger, 2014, Hohenstein et al., 2014; Huo et al, 2015). Therefore, managers in companies have to appreciate and see the importance of harnessing human capital potential for the success of their companies. These results contribute both to human resources management and supply chain management by illustrating that SCF can be enhanced by leveraging human resources management practices. This is very critical as SCF can be viewed from many angles such as HRM practices confirming that SCF is a multidimensional construct (Elgazzar and Elzarka, 2017; Tsai, 2012). Therefore managers of hotels and other organizations encouraged to bring in employees with the required skills, knowledge and cultural fit and then these employees be motivated through job security and compensation practices that are fairly discussed between management and employees.

Conclusion
This paper examined the effect of HRM practices on SCF. The purpose was to determine the relationship between selective hiring practices, job security practices, compensation practices, participation practices and teamwork practices on the SCF of hotels in Tanzania. However, not all HRM practices were selected because, not all HRM practices have the same influence over organizational outcomes such as supply chain management outcomes. As such few HRM
practices were selected by guidance of Aldefer’s ERG theory that human needs can be explained in three categories which are needs based on human existence (physiological needs), needs based on interpersonal relationship (relatedness needs) and needs related with development of human potential and capabilities (growth) (Alderfer, 1972). Thus from this conceptualization five HRM practices were selected.

Survey strategy of data collection was employed where 228 hotels managers were involved in the study. SEM technique was applied to the data. Results of this study indicated that only three HRM practices: selective hiring practices, job security practices and compensation practices were found to significantly influence SCF in hotels while participation practices and compensation practices were not found to influence SCF significantly. However, these results provide both knowledge to theory and practice on the HRM/SCF interface and give significant guidelines to managers in HRM and SCM fields.

Although the study is very important, it still suffers from the following limitations: First, only five HRM practices were considered in the study, HRM discipline contain so may HRM practices as such no single study can accommodate them at one. Second, although the study found that participation practices and teamwork practices had no significant relationship with SCF, this could be attributed by cross-sectional nature of the study which tend to capture the respondents opinions at a given period of time, which may bring different results for example when longitudinal approach is used. Third, this study used self-reported data from hotel managers, which suffers self-report bias. However, future studies on the area of HRM/SCF interface, should consider collect raw data using longitudinal approach to extend this research stream. Again, although this study have found selective hiring practices, job security practices and teamwork practices to be significant positively related with SCF, future study could use these practices in other service settings such banks, schools etc., to compare results. However, future study could use other HRM practices on SCF to bring more insight on the HRM/SCM interface.

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