Influence of Quality Practices on Cultural Satisfaction at Work in Africa: Case of Ivorian Agro industrial Firms

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Abstract

The International Organization for Standardization (ISO) standards, whose major challenge is customer satisfaction in markets that have become global, have the lowest certification rate in Africa. The purpose of this article is to highlight the mixed capacity of their practices to improve the cultural satisfaction of African workers (internal clients). A mixed empirical study (qualitative and quantitative) was carried out on a sample of 103 employees of ISO-certified Ivorian agro-industrial companies and basically involves multiple regressions. The results of the main components analysis confirm the dimensions, control, infrastructure and human resources of ISO quality practices and then reveal the family and collectivist dimensions of cultural satisfaction that are valuable for workers; the hypothesis tests highlight very different effects from the three dimensions mentioned. They are respectively mixed, insignificant and significant for the control, infrastructural and human dimensions of these practices of Western origin imposed in Africa and elsewhere. Family cultural values remain at the heart of the challenge and hope is born of procedural collectivism.

Keywords: quality practices, cultural satisfaction, ISO standards, Ivorian companies.

Introduction

Worker satisfaction is expected to play a key role in the implementation of ISO (International Organisation for Standardization) quality standards, which are gradually emerging in organizations around the world (ISO, 2017; Boiral, 2011). According to ISO, a standard is a "document, established by consensus and approved by a recognized body that provides, for common and repeated use, rules, guidelines or characteristics for activities or their results, aimed at the achievement of the optimum degree of order in a given context[2]"; and quality is perceived as "a culture that translates into behaviour, attitudes, activities and processes that provide value by meeting the needs and expectations of customers and other relevant stakeholders" (ISO 9000 standard: 2015). First published in 1951, these universal principles of ISO quality are the subject of 1,556,758 certifications worldwide in 2017 (ISO, 2018). They have attracted increasing interest from researchers over the past thirty years (Deming, W., 1986; Ishikawa, K., 1986; ISO, 1987; Powell T., 1995; Samson, D. and Terziovski, M., 1999; Quazi, H.A., Hong, C.W., Meng, C.T., 2002; ISO, 2008; Boiral, O., 2011; ISO, 2015; Fonseca L., 2015; ISO, 2018; Fonseca L., Domingues J-P., 2018; Diego, 2018). This literature focuses in particular on the importance of ISO certification in strategic management. This management covers all the organisation's long-term orientations aimed at continuously increasing its share of the global market, which is essentially regulated by ISO standards. Indeed, in the new globalizing economic context, a highly strategic competitive argument is ISO certification, which "is a procedure allowing a third party to guarantee in writing that a process, product or service meets the specific requirements of a reference system[3] »; organizations use it to improve their operations and demonstrate that they are organized to satisfy customers. Indeed, ISO 9001 certified companies increase their share of export turnover by 7% compared to those that are not certified according to the performance circle of Paris Dauphine organizations cited by AFNOR (2017).

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[2] https://qualite.ooreka.fr/comprendre/norme-iso (23/07/2019).

[3] Entreprise et Droit (2017), Certification ISO : tout savoir sur la certification ISO. [Online] Available at: www.entreprise-et-droit.com (23/07/2019).

While end customer satisfaction is the major challenge of quality management, it remains fundamentally dependent on behavioural practices resulting from the attitude of workers who control production processes. A favourable attitude, satisfactory for internal customers (employees), with regard to the operationalization of the generic principles of the standard, is potentially a determining factor in improving quality practices (Yee et al.; 2008). However, while in developed economies, particularly in Europe and East and Pacific Asia, which hold 40.8% and 43.4% of the world's ISO certificates in 2016 (ISO, 2017) respectively, research abounds on the link between quality practices and customer satisfaction (internal and external), in Africa (1.2% of certificates), they are rare and new (Boiral, 2008 ; 2011). Indeed, it is only recently in 2019, some 70 years after Deming's pioneering theories on the subject, that sub-Saharan Africa organized its first colloquium[4] on quality management (in Ouagadougou) and raised the question of the operationalization of ISO standards strongly modelled on the Western model (formalism, rigorous time management, reduction or elimination of uncertainty, etc.) in the light of local culture. Also, in Cote d'Ivoire, work on this subject is still rare.

The purpose of this article is to highlight the influence of quality practices (resulting from the operationalization of ISO standards) on the cultural satisfaction of internal customers (workers) in Ivorian companies. Hence the priority question of this research: what is the influence of quality practices on the cultural satisfaction of internal customers in Ivorian agro-industrial companies? More specifically, what is the influence of each of the control, infrastructure and human resources dimensions of quality practices on the cultural satisfaction of internal customers in Ivorian agro-industrial companies?

This cultural satisfaction at work is perceived as the emotional state of workers when they compare ISO quality practices and their cultural expectations at work. Indeed, ISO quality management must necessarily be adapted to local cultural reality, as is recommended for classical management in African companies (Kessy, Z. M., 1998; DIA A. L., 1991, D'Iribarne P., 1989). The dimensions of quality practices mentioned, which raise the questions of audits (control), quality infrastructures in a context of underdeveloped or under-industrialized countries, African personnel who must be involved in Western quality practices, are potentially problematic.

This article is divided into two parts. The first, theoretical, is structured around the context of research and literature review; while the second declines the empirical study through the methodological approach and the presentation of results.

1. Background and Literature Review

1.1. Research Context

In the aftermath of the post-election crisis in 2010, the relative success of the recovery of the Ivorian economy stabilising growth at around 7% over the past seven years[5], enhances the business environment and particularly attracts the interest of companies, engaged in fierce international competition, in ISO certification. Thus, CODINORM (Cote d'Ivoire Normalisation), the national standardization body that has been an ISO member since 1997, which supports Ivorian companies in their quality approach towards certification, has seen its activity intensified. In 2017, this organization (CODINORM, 2018) issued 1,021 certificates of conformity compared to 795 in 2016; it sold 533 ISO standard documents and 231 Ivorian standard documents then 572 and 197 respectively in 2016; it adopted 23 and 255 ISO standards in 2017 and 2016 respectively and then supported five companies in their move towards certification. According to the same source, in April 2018, the Ivorian portfolio included 2896 standards, 88% of which are ISO standards, compared to 2481 and 85% respectively in 2016. The market will require sustainable and traceable ISO certification of cocoa by 2020... However, despite this important standardization activity in Cote d'Ivoire by CODINORM and other private certification bodies such as Bureau Véritas, APAVE..., the rate of ISO certificates in the country remains one of the lowest in the world (ISO, 2017). Indeed, this rate varies between 1 and 2% for more than 1500 small and medium-sized companies (Qualitas[6] firm). Hus, "of the approximately 500 Ivorian companies operating in the agro-industrial sector, only 5% are ISO certified"[7].

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[4]African Colloquium on Quality Management OUAGADOUGOU 2019, Quality Management in Africa: Assessment and Prospects, Université Ouaga II on June 27 and 28, 2019.

[5] Banque Mondiale (2019), Perspectives économiques en Côte d'Ivoire : 8 graphiques pour comprendre les enjeux de l'urbanisation ; https://www.banquemondiale.org (23/07/2019).

[6]http://news.abidjan.net/h/523788.html (18/06/2019).

[7]https://www.fratmat.info/index.php/economie/agro-industrie-seulement-5-des-entreprises-ivoiriennes-sont-certifiees (29/05/2019).

This relative infertility of the Ivorian context to ISO standards contributes to justify the objective of this article aimed at identifying the degree of significance of the influence of quality practices on the cultural satisfaction of internal clients.

1.2. Quality Practices and their Dimensions

All versions of ISO standards distinguish a strategic dimension followed by an operationalization phase within organizations in both developed and developing economies. The result is a variety of quality practices, administered to the production processes established to seek product conformity and having dynamic characteristics related to continuous improvement.

These quality practices can be defined as all planning, execution, control and readjustment activities to achieve the perfection recommended by ISO standards (Deming PDCA), a set of coordinated guidance and control activities in quality organizations (Seif E. B., 2016). They vary from one company to another depending on the design of managers; products (goods and services) designed according to stakeholder requirements and have consequences that are often beneficial to the organization, but sometimes undesirable. They must guarantee both quality control and quality assurance, translate the concepts of quality policy into action, plan and improve quality and ultimately certify the organisation, thus contributing to strengthening its international legitimacy. These practices can be seen as the core of a marketing strategy to increase sales in the international market. They represent both a way of improving internal managerial practices and a specific response to pressures from external stakeholders (customers, shareholders, etc.). The human, infrastructural and control dimensions make up these quality practices.

1.2.1. The Human Dimension of Quality Practices

Quality practices are derived from the principles of quality and are applied in practice. These principles are customer orientation, responsibility, leadership, employee involvement, process approach, improvement, evidence-based decision-making and stakeholder relations management (ISO 9001:2015). The underlying basis of these principles includes workers structured by the socio-professional categories of the organization. As in Taylor's scientific organization of work, functional staff design the quality activities to be carried out and the implementers take care of the implementation. The responsibility of the management is in particular to define the orientations (objectives), mobilize the necessary resources (material, immaterial and competent human resources) and encourage the involvement of the staff (HRM). This staff involvement requires the development of skills, their appreciation and recognition by management (staff motivation) towards those workers who manage the structured processes.

1.2.2.   The Infrastructural Dimension of Quality Practices

According to UNIDO (2017), "a quality infrastructure system (QIS) is a combination of initiatives, institutions, organizations, activities and people" at the national level. Within a company, it is the physical, intangible process and service dedicated to quality. The process approach makes it possible to perceive the organization's activity as a set of sub-activities correlated with input and output data within a constantly evolving system. Improvement requires the constant search for weaknesses, their correction and anticipation as well as the production of rational data to inform quality choices. Thus, the adapted production systems, their maintenance, preventive and curative maintenance, a competent, operational and efficient quality service constitute the basis of the infrastructural dimension of quality practices. Meyer and Rowan (1977) point out that there is similarity in the adoption of formal structures and rational operating standards; they denounce an apparent "isomorphism" imposed by stakeholders. These infrastructures are the headquarters of activities subject to control to improve their performance.

1.2.3.   The Control Dimension of Quality Practices

The control of quality practices really took shape at the dawn of the industrial revolution with Taylor's scientific management. It has evolved successively between unit control at the end of production, statistical control of mass production, and the control of quality practices. The first method of control shows its limits in the context of mass production where it becomes impossible to control all products because of cost; and also the cost of non-quality, which also reaches its maximum value at the end of production. Statistical methods have a margin of error that must be addressed. Thus, quality assurance integrates control at all stages (self-checking, control at the next station...) of the production process and is part of Deming's "kaïzen" (continuous quality improvement). According to this theory, the activities planned and then carried out must be monitored to identify deviations from objectives and initiate corrective actions. These controls require management reviews to support and ensure reliable coordination of activities, reliable performance indicators useful for measurement, a dashboard and internal audits.

It integrates inspections, verifications, tests and metrology. Control activities are subject to rigorous structured and formalized procedures. Research has often focused on the positive benefits of ISO certification (competitive advantage, internationalization, etc.) that overshadow underlying quality practices and support the entire process. However, these ISO standards practices imposed in today's unavoidable international relations essentially convey Western cultural values (formalism, rigorous time management, reduction or elimination of uncertainty...) sometimes contradictory to African cultural realities.

1.3. Cultural Satisfaction at Work

Cultural satisfaction at work can be seen as an individual's emotional state in relation to the difference between what they would like to gain from their work and what they actually gain from it in relation to their specific culture (Loke, 1976). It is also the result of comparing what a given aspect of employment really is with respect to an individual's culture and what he or she would like it to be (Lawler, 1971); the individual's emotional orientation towards the position he or she currently occupies, in relation to his or her culture (Vroom's theory of expectations, 1964: 99).

Cultural satisfaction can be perceived through the four dimensions of national culture according to Hofstede (1987). The first dimension, distance from power, shows that power relations in Africa are dominated by autocratic leadership (Henri Bourgoin, 1984), submission to the authority of the chief (Hernandez, 2000), difficulties in delegating power (D'Iribarne, 1990). It is far from being perceived as impersonal. The second dimension is the control of uncertainty. According to her, Africans are fatalistic, have little control over the uncertain and therefore have a strong tolerance for it; God, fetishes, spirits possessing power, are supposed to control fate (Kessy, 1998; Kandem, 2002); hence also the importance of religion among some African workers. The third dimension pits femininity against masculinity. The roles and behaviours of individuals by gender differ according to culture. Female cultures, as is the case in Africa, favour quality of life over the accumulation of material "individuals work to live" and care little for future generations (Bourgoin, 1984). Finally, the fourth dimension distinguishes collectivist cultures from those that are individualistic. Unlike the predominantly individualistic West, African countries south of the Sahara are collectivist. Individuals are materially and psychologically dependent on the group whose interests are always paramount. Community solidarity, the logic of "gift" and "counter-gift" (Kessy Z. M., 1998) are important characteristics of this type of culture.

By analyzing Boiral O.'s work (2008), cultural satisfaction at work can be linked to the paternalism characteristic of African leaders, "Father Protector" (Hernandez, 2000); also, unlike Westerners, African workers expect moral and material support from the employer on the occasion of happy (baptism, marriage,...) and unfortunate (death of close relatives) family events. Cultural satisfaction can also be linked to weak time management: the priority of "social time" (slowness, delay, absence) over "administrative time" (Bognon, 1990; Kessy Z. M., 1998); the priority given to implicit and tacit aspects to be decoded in African communications (Hall, 1984); the predominance of orality over writing. This African cultural satisfaction cannot remain neutral in the face of the advent of ISO standards to Western practices.

1.4. Relationship between Quality Practices and Cultural Satisfaction

ISO quality practices are essentially based on Western culture (Boiral, 2008). The debate about their influence on job satisfaction is struggling to find a consensus. There are two main currents of thought on the subject; if the first one finds a positive influence between these two concepts, the second one affirms the opposite.

Advocates of the positive influence of quality practices on job satisfaction are based on the perspective of acceptance (Davis, 1989), based on Ajzen and Fishbein's theories of reasoned action and planned behaviour. This perspective provides an understanding of the individual determinants of adoption and satisfactory use of a tool by users, showing that the perceived ease of use and perceived utility of the tool justifies its adoption and operator satisfaction. Thus, if quality practices offer ease of use for employees, particularly in the light of their culture, then they will be satisfied to use them; the purpose of these practices being certification, the usefulness of which is well known to employees. In this vein, Arnaud E. and Pierre-Antoine S. (2013), conducted qualitative exploratory research on the perception of the quality management standard by operational staff and its impact on their attitude at work. the study focused on the case of ISO 9001 in a hospital department in France. The results showed that employees in the different socio-professional categories perceive the norm favourably and that positive attitudes at work result.

Similarly, Fonseca L. M. and Domingues J. P. (2018) conducted an empirical study on the transition process to ISO 9001:2015 (which came into force on 15 September 2018) in Portugal; they analysed the motivations, benefits and success factors. The study covered a sample of 300 companies certified ISO 9001 or in the process of being certified in a wide variety of sectors. In particular, the results show that internal motivations are more likely to lead to the adoption and implementation of the new standard than external motivations. In this perspective, Calvo et al (2016) acknowledge that the implementation of ISO standards generates internal positive effects in terms of improving organization and operational activities (Terziovski and Power, 2007; Wahid and Corner, 2009). However, this positive effect on employee attitudes is not immediate. It is gradually established over time after the implementation of ISO standards (Fonseca, 2015b; Castillo-Peces, et al., 2017). However, this thesis related to the effect of time is refuted by other researchers who claim the opposite by proving that, over time, the positive internal effects of quality practices can even deteriorate (Casadesus and Karapetrovic, 2005; Karapetrovic, Fa and Heras, 2010; Sampaio, Saraiva and Rodrigues 2009).

Thus, ISO management systems, far from perfect, are subject to limitations and their adoption is sometimes the result of pressure from stakeholders. In this context, Boiral (2006), recognizing that ISO 14001 standards are based on the same management principles as ISO 9000, is conducting a case study on certification from a neo-institutional perspective in a Canadian context. In particular, it analysed the ritual and ceremonial aspects of structural compliance resulting from institutional pressures. Its results show that, in addition to a "coercive isomorphism" that is a source of rigour and internal rationalism justifying the implementation of ISO standards, quality practices generate perverse effects linked to the lack of employee involvement, bureaucratic burden and the ritual nature of audit practices. These results shed light on quality practices that are sometimes superficial, responding to the needs of institutional symbolism and concealing difficulties and contradictions in company management. The second line of thought thus highlights the negative influence of standardized quality practices on workers' cultural satisfaction. Indeed, ISO standards, which are expected to spread throughout the world's companies without distinction, are generic, have Western cultural characteristics such as formalism, rationalism and procedural character and encounter implementation difficulties, particularly in areas with cultural differences from the West. Sub-Saharan Africa represents an interesting analytical framework for this phenomenon; indeed, based on the work of Boiral (2008), which compares the main features of African management with the values conveyed by ISO standards (Table 1), it is possible to understand the evolution of job satisfaction.

Table 1: Relationship between Quality Practices and Cultural Satisfaction at Work

Dimensions of culture	Dominant features of the African management	ISO quality practices	Impact of satisfaction at work
Hierarchical distance	Autocratic leadership type (Bourgoin, 1984; Bognon, 1990; Hofstede, 1984); submission to the authority (Hernandez, 2000); difficulties in delegating power (D'Iribarne, 1990).	Formalized management practices: definition of policies, procedures, objectives, audit process, etc. Clarifying roles and responsibilities.	Reduction of leaders' powers, improvement among workers who escape role conflicts.
Paternalism	"Protective father" leader, friendliness and personalism in human relations, acceptance of the leader's supremacy. (Hernandez, 2000).	Impersonal relationships, respect for procedures, follow-up of objectives.	Pressure on low-skilled employees who were protected by leaders
Collectivism	Solidarity, loyalty, strong sense of belonging, mutual aid system based on a "donation" logic (Kessy Z., 1998; Hofstede, 1984), social actions in the surrounding community.	Obligations, roles, responsibilities and mutual assistance according to the predefined formal management system. Taking into account stakeholders' expectations	Increase in employee job satisfaction with the organization's mutual assistance and social actions.
Tolerance for uncertainty	Fatalism, high tolerance for uncertainty; low propensity to avoid ambiguity and risk through formal structures and rigid planning practices (Hofstede, 1984).	Low tolerance for uncertainty; mandatory risk prevention, search for sources of "non-compliance" and their elimination.	Potential reduction in the satisfaction of fatalistic workers, committed to tolerance in the face of uncertainty.
Strong communication context	Predominance of implicit and tacit aspects in interpersonal communication (Hall, 1984).	Essentially explicit communication, through formal rules and written documents.	Concern among illiterate, poorly educated or orally attached people.
Polychronic time	Predominance of "social time" over "administrative time", slowness and disorganization of public services (Bognon, 1990)	Predominance of "administrative time" over "social time". Systematic planning and monitoring of activities (Hall, 1984).	condemnation to compliance with programmes, agendas and planning (Kessy Z., 1998)

Source: adapted from Boiral's work (2008), pages 25, 26 and 27.

Considering that, the ultimate goal of ISO standards is to improve internal and external customer satisfaction, and that the practices that result from them are marked by a Western culture that is contradictory to that of Africans in many respects, as indicated in the previous literature, we formulate the following hypothesis:

ISO quality practices significantly influence the cultural satisfaction of workers in Ivorian agro-industrial companies. Thus, each of the dimensions, control (H1), human (H2) and infrastructure (H3) of quality practices significantly influence the cultural satisfaction of workers in Ivorian agro-industrial companies.

2. Methodological Choices

To address our problem, we have adopted a mixed methodology (qualitative and quantitative). Indeed, this methodological combination contributes to considerably strengthening the validity of the results. If the first phase allows us to qualitatively apprehend the quality practices likely to influence workers' cultural satisfaction, the second phase studies its causality.

2.1. Methods and Tools of Data Collection

To measure the independent and dependent variables of our research model, we have essentially based ourselves on the theoretical contributions of Zadi Kessy (1998), Boiral (2008), qualitative interviews and the Churchill procedure (1979). Thus, 9 items were selected for quality practices and 8 for cultural satisfaction. All the questions propose Likert-type response modalities with five anchor points: disagree, rather disagree, rather disagree, no opinion, rather agree and agree. After the necessary pre-tests and adjustments, the dimensionality and reliability of the measurement scales were examined. For all variables, the KMO test has values greater than 0.6 and the Barlett test leads us to reject the null hypothesis of data sphericity. Data were collected in June and July 2019.

According to the directory of certified products in Cote d'Ivoire (CODINORM, 2019) of July 04, 2019, only four (04) identified agro-industrial companies have at least one valid ISO certificate. The probabilistic method can therefore be validly used to constitute the research sample. Thus, his choice was essentially based on the simple random drawing method. For the qualitative phase, the semi-directive interviews concerned twenty (20) workers, including two (2) managers and three (3) performers for each of the four (4) companies after the participant observation. This phase took place during the first month and required an interview guide on the quality practices implemented in companies, their potential influence on job satisfaction with local culture and a literature search. Similarly, for the sample of the quantitative phase that took place during the second month, we selected 120 employees, including 30 workers per company (simple random draw); and of the 120 questionnaires administered face-to-face, 103 were usable.

2.2. Methods and Tools of Data Analysis

The qualitative data collected were subject to a thematic content analysis. A frequent count carried out on the indicators of quality practices and cultural satisfaction made it possible to highlight the degree of their importance in the sample and to have a first approach to the link studied. These indicators were then used to write the quantitative questionnaire that will be purified. The quantitative data collected are processed by the SPSS 20 statistical tool, which has made it possible to practice PCAs, calculate correlation coefficients, and examine the link between quality practices and employee cultural satisfaction in the light of multiple regressions.

3. Results and Discussion

We first present the results of the qualitative phase, then those of the quantitative phase before concluding.

3.1. Results and Discussion of the Qualitative Approach

Table 2: Perception of Quality Practices by Workers

N°	Item	Number /20	Frequency	Verbatim
1	Procedural formalism	12	60%	"Too many papers to handle"
2	Meetings	10	50%	"Too many meetings"
3	Infrastructures	14	70%	"Only trouble shooting, no repair"
		7	35%	"Indicators still subjective"
4	Assessment practices	9	45%	"Internal audits slow down work"
5	HRM	15	75%	"Formal and informal internal communication"
		11	55%	"Selective favouritism persists"
		9	45%	"The involvement is calculated"

Source: our field investigations

Overall, ivorian employees perceive quality practices as an "overload". Thus, if less than half of employees have a poor perception of internal audits, more than half of them dispute: "too much paper to manage", "too many meetings", "too many troubleshooting, no compensation", "formal and informal internal communication", "selective favouritism remains". This reflects the weight of formalism (Boiral, 2006), the difficulties of infrastructure in following the standard, the persistence of informal HRM practices.

Table3: Perception of Cultural Satisfaction by Ivorian workers

N°	Item	Number / 20	%	Verbatim
1	Collectivism	12	60	"Preference for collective objectives"
		8	40	"Preference for individual objectives"
2	Managing uncertainty	18	90	"Inability to predict all quality defects"
3	Practicing religion	6	30	"Satisfaction with opportunities to practice religion at work"
4	Family events	5	25	"Satisfaction with bereavement support"
		7	35	"Satisfaction with support for weddings"
		8	40	"Satisfaction with support for births"

Source: our field investigations

Ivorian workers are in favour of collectivism; thus, 60% of them prefer "collective objectives". 90% of them are convinced that it is "impossible" to prevent all quality defects; this reflects their strong tolerance for uncertainty (Kessy Z., 1998). Only less than half of these workers are satisfied with the opportunities to practice their religion and the supports they receive during happy and unfortunate family events. This reflects the low level of consideration of these cultural aspects in the management of modern business and in the search for quality. These qualitative results suggest that quality practices are unable to improve the cultural satisfaction of Ivorian workers. We will see if the quantitative results confirm this.

3.2. Results and Discussion of the Quantitative Approach

3.2.1. Sample Description

The sample includes more men (89.3%) than women (10.7%), more singles (76.7%) than married (23.3%), more income above 250,000 CFAF (69.9%) followed by income below 60000 CFAF (18.04%) and income between 60000 and 250000 CFAF (11.7%). At the level of socio-professional categories, employees are the most numerous (50.49%) followed by workers (35.92%) and managers (13.59%). The most represented level of education in the sample is higher education (44%) followed by secondary education (39%) then primary education (10%) and no level (10%).

3.2.2. Main Component Analysis and Hypothesis Testing

3.2.2.1. Main Component Analysis

- Scale of Quality Practices

Table4: Dimensionality of Quality Practices

Items	Factor 1	Factor 2	Factor 3
Formalized procedure	0,453	0,433	0,200
Meetings	0,765	-0,158	0,143
Internal audits	0,642		
Assessment policy	-0,118		0,842
Internal communication	0,585	0,252	
Human Resources Management	0,364	0,209	0,602
Infrastructures		0,882	0,146
Indicators	0,604	0,527	
Involvement	0,178	0,303	0,568
KMO index and Bartlett test	0,777***		
Eigenvalue	3,239	1,294	1,014
Percentage of variance explained	32,39	12,94	10,14
Percentage of total variance explained = 57,47%			

Source: Field quantitative data

The criteria for factoring data related to quality practice are acceptable (KMO= 0.777; x² Bartlet approximate significant at 1%, p= 0.000). The Kaiser criterion leads to the adoption of three factorial axes. In addition, the three factorial axes selected explain 57.47% of the total variance of the quality practice. The correlations of the items with the factor axes indicate that on the first factor axis, three items have acceptable contributions. These are "the holding of meetings = 0.765", "the practice of internal audits = 0.642", "the use of indicators and the dashboard = 0.604". This first dimension is called quality practice control.

The second axis, qualified as infrastructural, is formed by a single item "infrastructures =0.882" and finally, the third axis is composed of two items that are "evaluation policy = 0.842" and "human resources management = 0.602". This third dimension is called the human dimension of quality practices.

Table5: Reliability Statistics of Quality Practice Measurement Scales

Dimensions	Number of items	Cronbach's Alpha	Fisher's test (Sig.)
Control of quality practices	5	0,727	3,044 (0,017)
Human dimension of quality practices	2	0,602	21,952 (0,000)

Source: processing of data collected on the field

Table 5 shows the internal consistency of two-dimensional items, those with a higher number of items is 1. The Cronbach's alpha value of 0.727 for the quality practice control dimension is significant at 5%. For the human dimension of the practices, Cronbach's Alpha is 0.602 and very significant. It can therefore be concluded that respondents are consistent in their responses for both dimensions. Thus, the items selected are reliable for the study of each dimension.

- Scale of Cultural Satisfaction

Table 6 : Dimensionality of Cultural Satisfaction

Items	Factor 1	Factor 2
Mutual assistance		0,105
Collective objective	0,138	0,834
Non-quality		0,455
Collective performance		0,751
Religion practice	0,109	-0,109
Bereavement support	0,783	0,344
Wedding support	0,930	
Birth support	0,919	
KMO index and Bartlett's test	0,730***	
Eigenvalue	2,897	1,472
Percentage of variance explained	36,217	18,397

Source: processing of data collected on the field

The analysis of Table 6 on measures of cultural satisfaction of the company's internal customers shows that the data are factorizable. Indeed, the KMO index gives a good value (KMO= 0.730) and the Bartlett test is significant at 1%. After the implementation of the CPA, two dimensions (factors) are obtained that explain 54.62% of the total variance in the cultural satisfaction of internal clients. The first factor called family values is composed of three items with very good contributions. These are "bereavement support = 0.783", "marriage support = 0.930" and "child birth support = 0.919". The second factor considered as African collectivism is formed by two items with good contributions. The items in this dimension are "collective objective = 0.834" and "collective performance = 0.751".

Table7: Reliability of the Scales for Measuring the Dimensions of Cultural Satisfaction

Dimension	Number of items	Cronbach's Alpha	Fisher's test (Sig.)
Family values	3	0,862	3,711 (,026)
African collectivism	2	0,683	21,952 (0,000)

Source: processing of data collected on the field

The Cronbach's alpha of 0.862 for the family values dimension is a good result; and 0.683 for the African collectivism dimension is an acceptable result. For this study, we therefore retain that the information provided to study the two dimensions is reliable for measuring the cultural satisfaction of the company's internal customers.

3.2.3. HypothesisTesting

3.2.3.1. Correlation Coefficients

Table8: Study of the Correlation between the Dimensions of Quality Practices and Customer Satisfaction

	Family values (Bilateral Sig.)	African collectivism (Bilateral Sig.)
Controlof quality practices	0,150 (0,130) ns	0,298(,002) **
Infrastructures	0,216 (,028)*	0,288(,003) **
Human dimension	0,272(,006)**	0,331 (,001) **
*. Correlation is significant at the 0.05 level (bilateral).		
**. Correlation is significant at the 0.01 level (bilateral).		
Ns. Non-significant		

Source: Analysis of field data

We studied Pearson's correlation between the dimensions of quality practices and the dimensions of cultural satisfaction at work. Table 8 shows that the monitoring of quality practices is positively and significantly correlated with satisfaction with African collectivism (coef=0.298 and p<5%), and not correlated with satisfaction with family values. Quality infrastructures are positively and significantly correlated with satisfaction with family values (coef=0.216 and p<5%) and satisfaction with African collectivism (coef=0.288 and p<1%). The human dimension of quality practices is positively and significantly correlated with satisfaction with family values (coef=0.272 and p<1%) and satisfaction with African collectivism (coef=0.331 and p<5%).

3.2.3.2. Multiple Regressions and Discussion

In this research, we used the multiple linear regression method to explain the cultural satisfaction (family values and collectivism) of the company's internal customers according to quality management practices (control, infrastructure and human dimensions).

Study of Cultural Satisfaction Related to Family Values

Table 9 below presents the model for the study of cultural satisfaction with family values as a function of the dimensions of quality practices and the model's quality assessment indicators (R^2 = 0.102; F sig. = 0.013). The R^2 indicates the percentage variance of family values explained by the model. In our study, the model explains 10.2% of the variance in family values and the Fisher test is significant at the 5% threshold. The quality of our model is acceptable.

Thus, the analysis of this table shows that:

- The control of quality practices (β=0.082; p=0.387 >5%) does not significantly influence the cultural satisfaction linked to family values in Ivorian agro-industrial companies (hypothesis H1.1 is not validated). This reflects the fact that the very absences to support an employee in the event of a happy or unfortunate event or to gather before his God, especially at the time of quality control, do not increase the quality which will tend to outlaw them against the will of workers.

- The infrastructural dimension of quality practices (β=0.132 ; p=0.188 >5%) does not significantly influence cultural satisfaction linked to family values in Ivorian companies (hypothesis H1.2 is not validated); the functioning of maintenance and quality services certainly experiences disruptions that are not favourable to quality during workers' absences, including when managing family cultural events.

- The human dimension of quality practices (β=0.239; p=0.028 <5%) positively and significantly influences cultural satisfaction with family values (hypothesis H1.3 is validated). This reveals the importance of taking into account in social policy the happy and unfortunate family events of workers through financial support and the judicious choice of the moment as well as people to express the moral support of the company to the colleague in front of the family.

Table 9: Model of the Study of the Satisfaction of Family Values

Model	Coefficients β	Standard error	t	Sig.
(Constant)	0,913	0,229	3,990	0,000
Control of quality practices	0,082	0,095	0,868	0,387
Infrastructures	0,132	0,099	1,326	0,188
Human dimension	0,239	0,107	2,231	0,028
Dependent variable: Family values				
R² = 0,102; F = 3,753; ddl1 = 3; ddl2 = 99; Sig. de F = 0,013				

Source: processing of field data

Study of Cultural Satisfaction Related to African Collectivism

Table 10 below presents the model of the study of cultural satisfaction related to African collectivism according to the dimensions of quality practices on the one hand, and the indicators for evaluating the quality of the model (R^2 = 0.197 ; sig. of F = 0.000) on the other hand. The R^2 indicates the percentage variance of cultural satisfaction related to African collectivism explained by the model. In our study, the model explains 19.7% of the variance in cultural satisfaction related to African collectivism and the Fisher test is significant at the 1% threshold. The quality of our model is acceptable.

Thus, the analysis of this table shows that:

- The control of quality practices (β=0.206; p=0.019 <5%) positively and significantly influences the cultural satisfaction linked to African collectivism in Ivorian companies (hypothesis H2.1 is validated); this reveals the importance of collective objectives during quality control and in the search for quality. The consequences of these collective objectives involve the whole team and not an individual isolated, excluded and marginalized by African culture (Kessy Z., 1998; Dia L., 1991).

- The infrastructural dimension of quality practices (β=0.157 ; p=0.088 >5%) does not significantly influence the cultural satisfaction linked to African collectivism in Ivorian agro-industrial enterprises (hypothesis H2.2 is not validated). This reveals that the infrastructural dimension tends to impose individual (non-collective) objectives and responsibilities per post; and the lag of infrastructures in Africa compared to industrialised countries implies maintenance difficulties sometimes due to lack of spare parts and tending to reduce the effectiveness of individuals at their post.

- The human dimension of quality practices (β=0.264; p=0.008 <1%) has a positive and significant influence on the cultural satisfaction linked to African collectivism (hypothesis H2.3 is validated); procedural mutual assistance and management's efforts to involve staff in a spirit of solidarity are well perceived by workers and promote quality.

Table 10: Model of the Study of the satisfaction of African Collectivism

Model	Coefficients β	Standard error	t	Sig.
(Constant)	0,693	0,210	3,305	0,001
Control of quality practices	0,206	0,087	2,379	0,019
Infrastructures	0,157	0,091	1,723	0,088
Human dimension	0,264	0,098	2,688	0,008
Dependent variable: African collectivism				
R² = 0,197; F = 8,103; ddl1 = 3; ddl2 = 99; Sig. de F = 0,000				

Source: processing of field data

Concluding Remarks

The objective of this article was to show the influence of ISO quality practices on the cultural satisfaction of workers in Ivorian agro-industrial companies. More specifically, it was a question of determining and analyzing the effect of each of the dimensions (control, infrastructure and human) of quality practices on cultural satisfaction. The methodology was based successively on a qualitative and a quantitative study.

The first, qualitative, focuses on twenty (20) semi-directive interviews of about thirty minutes each, documentary studies and fundamentally reveals a mismatch between Western ISO quality practices and African culture. They are perceived in substance as an "overload" because of the formalism (Boiral, 2008).

The second, quantitative, first collected data from one hundred and three (103) individuals; then it uses SPSS 20 to practice PCAs that confirm the three dimensions (control, infrastructure and human) of quality practices and essentially reveal two dimensions of cultural satisfaction at work (family values and African collectivism). It made it possible to calculate Pearson correlation coefficients and mobilize multiple regressions showing the effects of the dimensions of quality practices on those of cultural satisfaction. Finally, the results of this quantitative study show significant limitations in the ability of ISO quality practices to improve cultural satisfaction in Ivorian agro-industrial enterprises. Indeed, ISO quality practices do not provide for the support of an employee in the event of a happy or unfortunate family event, nor a place for religion and uncertainties valued by Ivorian workers attached to tradition. In addition, the infrastructure dimension tends to impose individual (non-collective) objectives and responsibilities per substation; and the lag of infrastructure in Africa compared to industrialized countries implies maintenance difficulties sometimes due to lack of spare parts and tends to reduce the efficiency of individuals at their substations. The weak congruence is fundamentally observed between the human dimension of quality practices and cultural satisfaction due to procedural collectivism.

As with any research, there are some limitations related to the small sample size, the method of processing qualitative data and the timeliness of the data. The content analysis of the qualitative data, which was conducted manually, could have been done using high-performance software such as NVIVO and Sphynx plus. Future research based on a larger and more representative sample of the parent population will use these software and collect longitudinal data. These subsequent studies could focus on a population of African workers from the diaspora subject to a high level of acculturation to assess the meaning of variation in the relationship studied.

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