

THE ASSOCIATION OF ORGANISATIONAL CULTURE AND ORGANISATIONAL COMMITMENT WITH JOB SATISFACTION: PERSPECTIVE OF THE MALAYSIAN VEGETABLE OIL PROCESSING SECTOR

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ABSTRACT

The present study has sought to contribute to the growing knowledge base pertaining to the increasing trend in the high employee turnover rate in Malaysia's manufacturing industry and challenges faced by organisations in retaining talented workforce arising from the job satisfaction issue. In such a perspective, this study examines the association of organisational culture and organisational commitment with job satisfaction. Insufficient research is available on these associations within the context of the Malaysian vegetable oil processing sector; thus, this study has aimed to add new knowledge to the existing literature. A quantitative research approach, namely a cross-sectional survey, was utilised to gather data from the sample population who were employed in vegetable oil processing factories in Pasir Gudang, Johor. The participants were chosen via the simple random sampling approach. Pearson correlation and linear regression analysis methods were utilised to analyse the associations among the variables. The highest correlation revealed between adhocracy culture and normative commitment. Regression analysis findings demonstrated a positive significant association between all dimension's variables of organisational culture and organisational commitment on job satisfaction. Overall, the study has provided comprehensive insights for the vegetable oil processing organisations to review the culture in their company that could enhance organisational members' commitment and job satisfaction.



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Keywords: organisational culture, organisational commitment, job satisfaction, vegetable oil processing sector, Malaysia

INTRODUCTION

The manufacturing sector is Malaysia's second key driver of economic growth that has contributed 22.4% to the gross domestic product (GDP) in 2018 among various other economic sectors (Mohd, 2019). Malaysia's manufacturing sector had significantly contributed in terms of gross output value from RM 1,142 billion in 2015 to RM 1,275.8 billion in 2017, which was equivalent to 5.7% growth per annum (Ho, 2019). The food processing subsector within the manufacturing sector accounted for approximately 10% of Malaysia's manufacturing production, which equalled to RM 19.4 billion of export value in 2018. Specifically, the production of vegetable oils and fats within the food processing subsector achieved a gross output value of RM 214.0 billion in 2017 (Ho, 2019) and this sector was registered as the nation's major GDP contributor (37.9%) in 2018 (Mohd, 2019). Furthermore, in 2018, Malaysia's highest export earnings (RM 65.4 billion) was from the palm oil sector (MIDA, 2019).

Vegetable oils and fats serve as a basic resource for numerous applications such as food, fuel, pharmaceuticals, and oleochemicals production and the global market value of vegetable oils was 86.5 million USD in 2015 (Statista, 2016). Ministry of International Trade and Industry (MITI) under the Malaysia's third Industrial Master Plan (IMP) 2006–2020 has identified the vegetable oil sector as a targeted industry in terms of the nation's investment sector with a 7.6% average annual growth (MITI, 2006). The rationale for the development of this industry is to ensure the national food security is preserved. Besides, the high growth potential of premium-processed vegetable oils arising from the shift in consumer preference and regulations towards healthier food products has spurred the vegetable oil global market demand and supply. In addition of being a value-added sector for agricultural products and escalating the export market, the food processing industry also serves as a source of employment with a 5.7% average annual growth from 1996–2005 (MITI, 2006). In view of the significant roles of the vegetable oil industry in enhancing both the domestic and foreign investments and boosting the economic growth and the labour market, the sustainability of this industry has paramount importance.

An organisation's key for excellence is a productive human asset. Many companies' success story of achieving high organisational performance is associated with employees' organisational commitment (Zulfiqar & Wasim, 2011). The salient task of enhancing employees' job satisfaction has been emphasised as a precursor for nurturing organisational commitment as a satisfied workforce is highly motivated and committed to pursuing organisational goals (Qionglei, Dorothy, Bradley & Yu-An, 2019; Veronica & Dorothea, 2015). In this context, according to Pakyasri, Rajendran and Teoh (2018) and Korner, Wirtz, Bengel and Goritz (2015), the culture of an organisation lays a framework for employee attitude and behaviour as this influences the contentment of employees, which manifest the workers' attachment to the organisation. Considering the importance of job satisfaction, this study has investigated the influence of organisational culture and organisational commitment towards employees' job satisfaction.

According to Department of Statistics Malaysia (DOSM), although the vegetable oil sector is one of the nation's largest economic contributor, the employment rate in this sector has fell by 1.3% in 2020 compared to 2019 (DOSM, 2021) and is relatively low (12.6%) compared to other subsectors within the manufacturing industry with a slow performance (DOSM, 2016). Job satisfaction level among Malaysian's exposed a worrying condition. Hay's Asia salary guide survey findings revealed an increasing trend on employee job dissatisfaction, from 52% in 2020 to 80% in 2021 (Hays, 2020; Hays 2021). Equally, Jobstreet's employee job satisfaction survey in Malaysia also highlights majority (74%) of the respondents were not satisfied with their current role. According to Michael Pages' talent trend report, two out of three employees (66%) are actively looking for new job opportunities (Michael Page, 2021), an increase by 9% from 2015 which 57% expressed intention to resign from their present job within a year (Jobstreet.com, 2015). Moreover, employee turnover in the manufacturing sector was ranked the highest (24%) based on Tower Watson total rewards survey (Collin, 2018; myStarjob, 2013). Such a staggering percentage is a pressing matter for businesses in retaining talents and reinforce the core importance of employee satisfaction. Therefore, identifying effective management tools to improve employee contentment at the workplace is critical within the context of this study.

Company culture remains among the top reason for employees to leave their current employment. Based on salary guide survey findings, company culture listed as top fourth reason (36%) to source for new job opportunity (Hays, 2020). Similarly, job retention survey report for Malaysia by Cooper (2015), also revealed unsatisfactory office culture as the top fifth cause (21%) workers resign from their present organisation. Perpetually, the same reason reported in Robert Walters' global salary survey whereby poor organisational culture as the third highest motive (25%) for Malaysians to resign from their job, which also led to lower employee engagement (Robert Walters, 2016; Swift, 2017). Consequently, the Malaysian manufacturing sector experienced a significant reduction (4.7%) in the employment growth (MPC, 2011; MPC, 2018) of the high skilled workforce due to polarisation in the labour market. Changing the organisational culture in a short period into the desired direction to produce satisfied workers is difficult. However, with the right analysis and emphasis by the management in understanding how the organisational culture influences employee job satisfaction, firms can retain their workers. As such, it is imperative to examine the effect of organisational culture components on employee satisfaction.

Nourishing employees' organisational commitment remains a key challenge of business leaders as the level of commitment is linked to the level of contentment a worker has towards his or her job and satisfied workers bind themselves to the organisational values, vision, and mission (Firend & Pamella, 2015). Employees working in labour-intensive industries such as manufacturing have a lower degree of importance in stating their feedback, which then leads to lower levels of overall employee happiness (Brockmann & Birkholz, 2014; Emmanuel & Ward, 2017). Furthermore, employees become more susceptible to anxiety, depression, and destructive attitudes that cause stressful situations and they become less dedicated to their job (Belias & Koustelios, 2014). Thus, increasing employees' organisational commitment to advance the organisation's interests is a more difficult hurdle to clear.

Although organisational culture, job satisfaction, and organisational commitment have been the focus of research in the organisational behaviour field across different sectors such as service and construction that showed a positive association, studies in the food manufacturing field are still lacking. Existing studies on job satisfaction, organisational culture, and

organisational commitment by Ramesh, Charles and Peter (2012), Hee and Ann (2019), Raza, Maria, Nousheen and Mohsin (2013), and Okta, Umar, Musadiq and Hamidah (2015) within the Malaysian food processing sector have merely emphasised either one or two of the said dimensions. Thus, limited studies are available that investigate the entire dimensions within the context of this study. Consequently, it is important to assess the organisational culture, job satisfaction, and organisational commitment in the context of Malaysia's vegetable oil market in view of the importance of this sector in different perspectives and to meet the rising demand for a skilled workforce. Specifically, this research aimed to answer the following research questions:

RQ1: What is the level of organisational culture and organisational commitment of employees in the vegetable oil processing sector?

RQ2: What is the status of job satisfaction of employees in the vegetable oil processing sector?

RQ3: What is the relationship between organisational culture and organisational commitment of employees in the vegetable oil processing sector?

RQ4: What are the association of organisational culture and organisational commitment with job satisfaction of employees in the vegetable oil processing sector?

The conceptual framework presented in this study designed to examine the association of organisational culture, organisational commitment and employee job satisfaction within Malaysia vegetable oil processing sector (Figure 1).

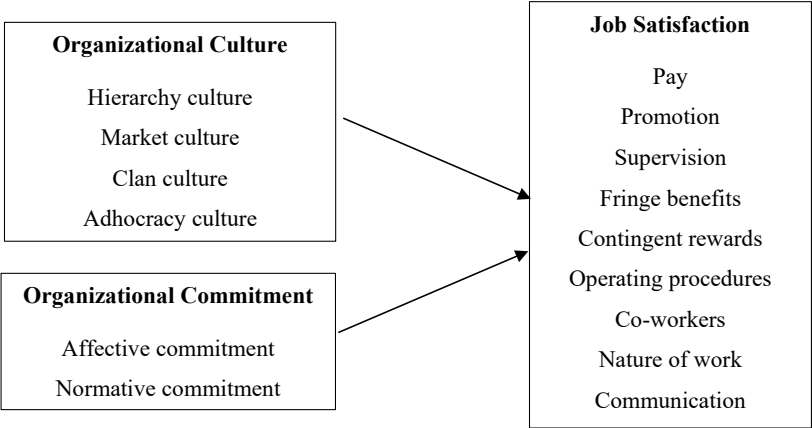


Figure 1: Conceptual Framework

This study’s results offer a few contributions. Primarily, by associating organisational culture and organisational commitment, this research has holistically tried to demonstrate the linkage of these two variables with job satisfaction via its effect on employees’ attitudes and behaviour. Secondly, this research offers new information and adds to the existing literature on the variables being studied in the context of Malaysia’s vegetable oil processing sector. Understanding the effect of job satisfaction will help organisations maintain their core competencies by enabling employer-employee relations with dedicated and faithful workers. Thirdly, these insights function to empower managers, HR professionals and workers to demand investment in cultural initiatives. Fourthly, the management can effectively distribute resources to factors with the highest impact and endorse the organisation as a virtuous place to work, whereby a ‘happy workplace creates contented employee’.

LITERATURE REVIEW

Organisational Culture

Organisational culture concerns a coherent set of norms, values, beliefs, attitudes, shared meanings, and principles held by the organisational members, which determines what is imperative and frames the decision-

making process (Daniels, Radebaugh & Sullivan, 2015). Meanwhile, organisational culture is also described as the outcome of attitudes and insights due to the interaction of an individual with his or her work, colleagues, and workplace environment, which enables the employee to comprehend every aspect concerning the workplace (Suharningsih & Murtedjo, 2017). Organisational cultures have in common the way they are constituted that is shaped by the elements of culture (Gerald, 2019). Organisational culture has been extensively researched in the organisational behaviour context as it determines the values perceived by the organisational member and the stimuli for employee job satisfaction.

An organisation's culture serves as a means that enhances organisational performance and is not limited to organising and monitoring a group of people. Though making a change to the culture and the process of adopting it could take a long time, an active organisational culture quickens an organisation's evolution from a 'good' to 'great' status (Daniels *et al.*, 2015). Firms that have a strong culture enjoy a higher productivity rate, content employees, enhanced job performance, and negative association with turnover intention (Joiceswarnalatha & Muralikrishna, 2017; Salman, Saira, Amjad, Sana & Muhammad, 2014). Moreover, an agile organisational culture creates a real competitive advantage in attracting and maintaining talents (Gulua & Kharadze, 2018). However, when a firm resists transforming and has obstacles to achieve diversity that organisation's culture becomes a liability. The stronger effect of organisational culture further signifies job satisfaction as the culture has become an integral component of the organisation (Meng & Berger, 2019).

There are numerous methods for assessing organisational culture. One of the approaches is Competing Value Framework (CVF), a cultural model by Cameron and Quinn (2006) that is highly adopted and one of the most comprehensively used in many empirical studies (Mojca, Brina, Ljubica & Jan, 2018; Seyed, Yashar, Mohammadreza & Jamshid, 2012). This cultural model is four-dimensional, where each quadrant relates to two general criteria, namely, internal focus versus external focus and flexibility versus stability (Figure 2). These values as evaluated using the Organisational Culture Assessment Instrument (OCAI) that corresponds to four different types of organisational cultures, namely hierarchy, market, clan, and adhocracy.

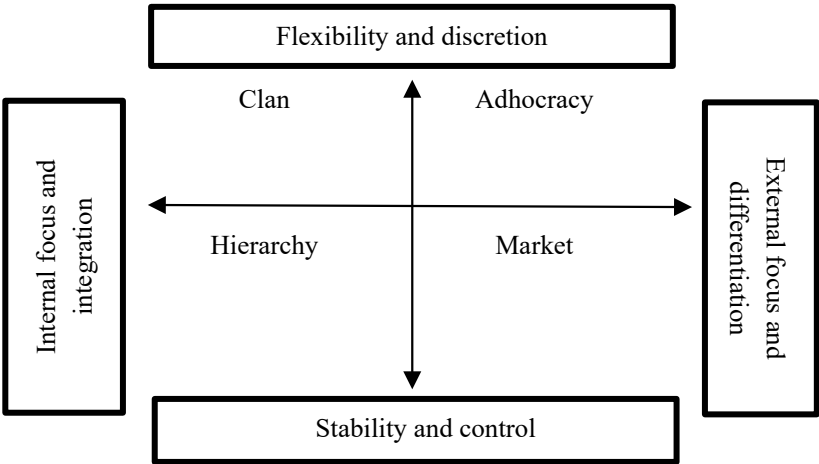


Figure 2: CVF and Organisational Culture Components

Hierarchy culture is based on multiple hierarchical levels, emphasises the internal environment, and is characterised by a work environment that is formal and controlled, which govern people’s activities (Caroline, Miguel, Lindomar & Leonardo, 2018). On the other hand, market culture is practised in result-oriented firms and emphasises on competitive actions and target achievement, which is organisational success based on market share and penetration. Next, clan culture is characterised by a pleasant work environment that encourages employees’ involvement and empowerment, while the members have an extended family feeling. Meanwhile, adhocracy culture is revolution-oriented, whereby leaders are innovators and risk-takers. Although the CVF framework has been utilised as a measurement tool in many organisational culture studies, limited investigations exist in the Malaysian food manufacturing context. In view of the resilient culture’s benefits of higher productivity rate and satisfied employees, it is crucial to scrutinise the level of organisational culture perceived by the employees based on the CVF.

Organisational Commitment

According to Silva, Castro, Santos and Neto (2017), organisational commitment is a psychological approach of sentiment, which influences

employees' attachment or their identification to be part of an organisation to attain its goals. On the other hand, Dhaifallah (2016) described employee commitment as an attitude portraying workers' allegiance to their company. Meanwhile, employee commitment is also explained as a display of attitude and as a psychological and practical connection to certain matters (Homayoun *et al.*, 2013). Hence, organisational commitment arises when employees sense a worthwhile feeling of their contribution and they exert readiness to pursue the best for their organisation, whereby they work towards accomplishing the organisation's goals.

Organisational commitment is an indispensable component that determines business performance in the long-term. Behaviour wise, highly committed employees have better propensity to remain with an organisation due to loyalty, achieve lower turnover rate, perform information sharing, and spread positive word-of-mouth about the organisation (Desselle, Raja, Andrews & Lui, 2018). Despite the importance of commitment in terms of organisational goal congruence, previous investigations have identified organisational commitment as associated with numerous desired outcomes such as high job satisfaction (Sungu, Weng, Hu, Kitule & Fang, 2019; Singh & Onahring, 2019; Muhamad, Muhammad, Yokananthini, Amalina & Safrena, 2019) arising from cognitive and affective reactions to the differential perceptions.

Meyer and Allen's (1991) tri-dimensional organisational commitment model is generally acknowledged by researchers and is emphasised in this study (Firend & Pamella, 2015). This three themes model is generally projected based on employees' emotional attachment to their company, the commitment to remain with the company, and the costs associated with exiting the company. Affective commitment (AC) based on the psychological approach is mostly concerning the emotional connection and involvement with the organisation that is considered beneficial for the organisation. Meanwhile, normative commitment (NC) signifies a worker's obligatory psychological contract to endure the organisation. Lastly, continuance commitment (CC) is anchored by cost implication due to leaving the organisation. Previous studies in various organization evidenced individuals with continuance profile offers little benefits to the organisation merely to retain their positions (Meyer & Allen, 2004) apart from weak association with employee productivity (Tutei, Geoffrey &

Jared, 2018; Mayer & Schoorman, 2017) and job satisfaction (Manilall, Jhalukpreya & Danny, 2016). In view of passive outcome of CC, therefore AC and NC were relevant to the context of this study.

Although organisations provide similar resources, AC and NC type employees may not exert similar considerable efforts for their organisation. Ahmady, Nikooravesh and Mehrpour (2016) and Hogan and Coote (2014) have pointed out the influence of organisational culture on commitment as it guides people's behaviour and employee's common perception of a firm. The business environment influences the level of commitment as there is no one single dimension employees are bound with. While much is known about organisational commitment and its connection with organisational culture, often the commitment and culture dimensions are investigated in isolation. Therefore, it is essential to determine the connection between both variables within the context of this research. Thus, the following hypothesis was proposed:

H1: There is a significant relationship between organisational culture and organisational commitment of employees in the vegetable oil processing sector.

Job Satisfaction

Job satisfaction has become an intensive interest for many researchers and is a key concern for management globally due to its influence on individuals' behaviour and impact on organisational success (Al-Shammari & Al-Am, 2018). Even though various investigations on job satisfaction exist, a general agreement regarding a fixed meaning for job satisfaction is lacking (Aziri, 2011). Multifaceted approaches have explained job satisfaction. For example, job satisfaction can be referred to as a set of favourable or unfavourable feelings and emotions about work (Neeraj, 2011), an evaluation of an individual's condition in the existing job due to being employed (Pirzada, Muhammad & Zahra, 2011), workers' perceptions of their job based on needs, values, and expectations (Jorge, 2018), and many others. In the simplest term, job satisfaction reflects the contentment level of individuals based on the different elements of their jobs.

The value of investigating job satisfaction is seemingly related to a person's level of motivation, organisational efficiency, business productivity, and personal well-being due to the worker's sense of accomplishment in his or her job (Edward, 2015; Saimir & Jonida, 2013; Emmanuel & Ward, 2017). Employees with an elevated job satisfaction level enjoy the job, have positive feelings regarding the tasks undertaken, demonstrate a higher level of commitment, show an increased level of loyalty, and improved job performance (Singhai, Dani, Hyde, & Patel, 2016). In return, this positively promotes an organisation and enhances customer satisfaction (Qionglei, Dorothy, Bradley & Yu-An, 2019) as the employees view the job as a meaningful outcome. Previous research has demonstrated that the performance of satisfied and happy employees correlates with increased productivity and sales by more than 30% compared to dissatisfied employees (Emmanuel & Ward, 2017). Therefore, workplace satisfaction is a crucial factor to emphasise in organisational behaviour due to its simplicity and directness.

Numerous instruments are available to assess the components of job satisfaction and the common tools are the Job Descriptive Index (JDI) and the Job Satisfaction Survey (JSS). Although past research on job satisfaction in the Malaysian context has used different job satisfaction tools, Spector's JSS is the most popular model employed worldwide to determine employees' attitudes and perspectives based on the cognitive process (Zirwatul, Keis, Mazidah & Azlina, 2014). The focus of this present research has been the JSS model that measures nine facets of job satisfaction i.e. pay, promotion, supervision, fringe benefits, contingent rewards, operating procedures, co-workers, nature of work, and communication.

Despite the positive benefits of job satisfaction, there is a growing concern on the job dissatisfaction issue as revealed in employee satisfaction surveys. The job engagement and satisfaction at the workplace survey by the Society of Human Resource and Management (SHRM) has shown that one out of two employees (51%) were satisfied with their job and organisation to a lesser degree (Christina, 2017). In another survey by SHRM, the majority of the employees were revealed to likely find employment outside their present company within 12 months (Christina, 2016). Negative consequences of job satisfaction lead to a higher turnover rate, absenteeism, reduced organisational performance, decreased productivity, and increased cost of recruitment and training (Cibele *et al.*, 2018; Ludmila *et al.*, 2018).

Nevertheless, various factors affect job satisfaction and the effect of organisational culture and organisational commitment has twofold importance to a certain extent under some conditions (Ozpehlivan & Acar, 2015). The prevailing culture in an organisation acts as a social glue that holds its members together and stimulates enthusiasm among employees to foster better performance. Thus, positive work behaviour results in enhancing employees' satisfaction (Muhamad *et al.*, 2019; Patrick & Sonia, 2012; Dhaifallah, 2016). However, Janicijevic, Nikcevic and Vasic (2018) pointed out that the job satisfaction degree varies based on the type of organisational culture. In addition, Jung, Moon and Hahm (2007) have discovered that job satisfaction could vary across the various economic sectors, and within the Malaysian context, limited research is available that have investigated the entire job satisfaction components based on the JSS model. Hence, the following hypothesis was proposed:

Hypothesis 2: There is a significant association between organisational culture and organisational commitment with job satisfaction of employees in the vegetable oil processing sector.

Therefore, this investigation intended to discover the level of organisational culture and employee commitment, determine the status of job satisfaction, determine the connection between organisational culture and organisational commitment, and the association of organisational culture and organisational commitment with job satisfaction in the context of the vegetable oil processing sector.

Theoretical Background

Job satisfaction in the organisational behaviour context provides a mechanism for further facilitating the contentment features among organisational members. On this basis, Herzberg's two-factor theory provides the groundwork for the elements that influence employees' job satisfaction. Herzberg's model focuses on two separate sets of conditions, which are responsible for the motivation and dissatisfaction of employees. The intrinsic factor, also known as the motivator factor, accentuates job content, like the degree of responsibility, self-esteem, autonomy, growth, achievement, and recognition, in which this factor nurtures workers' inner growth and progress leading to improved productivity and performance (Bateman, Snell

& Konopaske, 2017). Increasing these motivators eventually increases job satisfaction although this factor's absence does not dissatisfy the workers. Meanwhile, the extrinsic factor, also known as the hygiene factor, is a feature of the work perspective that comprises organisation policies, salaries, work settings, and interpersonal relationship with supervisors, peers, and subordinates. The theory states that if the hygiene factor is enhanced, then, workers' discontent with their job decreases, hence, they are more accepting of motivating features (Shweta & Sushil, 2017).

In this theory, scholars have identified that motivators are generally characterised by activities that lead individuals to feel extreme satisfaction, while activities that direct individuals to feel extreme dissatisfaction are characterised by hygiene factors. When organisations emphasise on improving the business environment and its culture, the effort aligns with the motivator and hygiene factors and companies are seen as being very committed to their organisational members' wellbeing (Safdar, Gulap & Shuaib, 2013; Dugguh & Dennis, 2014). The positive perception of organisational culture increases the employees' commitment because of their improved feeling of satisfaction towards their work. In this event, employees are inclined to possess more favourable attitudes and behaviour toward their organisation. As such, the emotions attained by employees from the business culture causes an attachment or detachment towards the organisation. Therefore, the present research has examined the connection between the different components of organisational culture and organisational commitment with job satisfaction.

METHODOLOGY

This investigation was a non-experimental cross-sectional quantitative study. A self-report survey questionnaire was employed to find out the level of organisational culture and organisational commitment, the status of job satisfaction, the association between organisational culture and organisational commitment, and the association of organisational culture and organisational commitment with job satisfaction. A pilot study was performed to ascertain the questionnaire's reliability before the actual data collection. It was conducted in July 2019 with 20 participants and the feedbacks were gathered within a week. The actual study was carried

out from August to October 2019. This section elaborates further on the population and samples, variables, instrumentation, and data analysis procedures.

Population and Samples

Workers employed in vegetable oil refineries were this study’s target population. Malaysia has a total of 62 vegetable oil refineries and Johor has the greatest number of refineries, namely 17 (MPOB, 2017). Samples in this study were selected through simple random sampling from refineries in Pasir Gudang, Johor. In simple random sampling procedure, each element in the population has non-zero probability of selection (Nazatul, 2016). Pasir Gudang was chosen because this area has the highest number of refineries in Johor, i.e. 14. Moreover, the respondents were more accessible here. The total population in this study was estimated to be 3,800 (DOSM, 2019). This study’s sample size was set to a minimum of 349 respondents, based on Krejcie and Morgan (1970). The human resource (HR) staff of the edible oil refineries were sought to gain permission to carry out the research. Respondents were requested to answer an online questionnaire through the companies’ HR staff, who were contacted through email. Besides, those the researcher had professional contact with were directly contacted through WhatsApp. Participation was strictly voluntary and was made anonymous. The online survey encompassed three constructs including organisational commitment, job satisfaction, and organisational culture in addition to several demographic questions (respondent’s gender, age group, education level, and number of years with the present organisation). Table 1 lists the demographic profile of the respondents.

Table 1: Demographic Profile of Respondents

Category	Item	Frequency	Percentage (%)
Gender	Male	48	48
	Female	52	52
Age (years)	18–30	32	32
	31–40	43	43
	41–50	17	17
	> 50	8	8

Education Level	SPM	23	23
	STPM/ Matriculation/ Diploma	42	42
	Bachelor's Degree	13	13
	Master's Degree	22	22
Number of Years with Current Company (years)	1–5	43	43
	6 –10	24	24
	11–15	16	16
	16–20	8	8
	> 20	9	9

Instrumentation

The research instrument in this study was based on the Three Component Model of Employee Commitment (TCMEM) to measure organisational commitment, JSS to measure employee satisfaction, and OCAI to measure organisational culture. Meyer and Allen's (2004) revised version of TCMEM measures the tri-dimensional construct of the level of employee commitment to an organisation i.e. AC, NC, and CC. Nonetheless, this research focused on AC and NC only, as described earlier, because employees with the CC profile has little contribution to organisational goals (Meyer & Allen, 2004) and previous research has pointed out that CC has a weaker relationship with job involvement (Kamila, Mashael, Sara & Muayyad, 2016). TCMEM consisted of 12 items in total, whereby there were six statements in each scale (AC and NC) that measured employees' perception of their relationship with the organisation and their reasons for staying.

Next, the JSS survey questionnaire adapted from Spector (1997) consisted of nine facet scales, i.e. pay, promotion, supervision, fringe benefits, contingent rewards, operating procedures, co-workers, nature of work, and communication that assessed workers' attitudes about the job. Each scale in the JSS model consisted of four questions, thus, there was a total of 36 items. The overall job satisfaction status was classified into three categories based on interval scale as follows: (1) low: 1-2.33, (2) moderate: 2.34-3.66, (3) high: 3.67-5.00 (Rula, 2017). As for OCAI, the instrument

was adapted from Cameron and Quin (2006) and measured four types of organisational culture, which were market, clan, adhocracy, and hierarchy. The four-culture quadrant was measured based on dominant characteristics, organisational leadership, management of employees, organisation glue, strategic emphasis, and criteria for success in which every dimension had four questions, whereby the total number of items was 24.

The original items in TCMEM contain reversed keyed items in which items marked with a stronger agreement implied a lower level of commitment. Similarly, some JSS questionnaire items are written in a negative direction. However, in this study, to avoid confusing the respondents, the reversed items were reworded in a positive direction. All the items were rated based on a 5-point Likert scale (1 = 'strongly disagree' and 5 = 'strongly agree'). The survey questionnaire was prepared in both Malay and English languages to help respondents understand the questions better. For JSS, the Malay version was adopted from Tan (2010), whereas for TCMEM and OCAI, a professional translator did the translation.

The survey questionnaire was validated through a pilot study with 20 respondents from the vegetable oil refineries. For pilot studies, Hill (1998) explained that a sample size of 10–30 is adequate. The questionnaire's reliability was determined based on Cronbach's alpha value, i.e. to test if the scales of this research instrument were acceptable for the intended purpose; the demographic information was not included in the reliability analysis. The research instrument's internal consistency ranged from 0.524 to 0.940 (Table 2), which was within the acceptable range as proposed by Taber (2016). Moreover, a Cronbach's alpha of 0.50 to 0.70 is stated to be moderately reliable according to Hinton, Brownlow, McMurray and Cozens (2004). This supported the reliability of the survey questionnaire utilised in this study.

Table 2: Results of the Internal Consistency of the Research Instrument

Variable	Scale	Cronbach's α
Job Satisfaction	Pay	0.893
	Promotion	0.743
	Supervision	0.821
	Fringe benefits	0.830
	Contingent rewards	0.940
	Operating conditions	0.656
	Co-workers	0.524
	Nature of work	0.861
	Communication	0.776
Organisational Culture	Clan culture	0.806
	Adhocracy culture	0.716
	Market culture	0.801
	Hierarchy culture	0.732
Employee Commitment	Affective commitment	0.780
	Normative commitment	0.784

Data Analysis

To analyse the data, Statistical Package for Social Sciences (SPSS) version 23 was utilised. The data set was first screened for missing values and outliers. Normality test was conducted to ensure the dataset was in a normal distribution. Further analysis of the dataset was done using the descriptive and inferential statistical approach. In the descriptive analysis, mean and standard deviation were computed for every variable in this research. Meanwhile, frequency and percentage were computed to determine job satisfaction status. Next, correlation analysis was performed to scrutinise the connection between organisational culture and organisational commitment of the workers employed in the vegetable oil refineries. The correlation of the variables was significant when $p < 0.05$ with a confidence level of 95%. On the other hand, linear regression was applied to find out the association of each dimension of organisational culture and organisational commitment with employee job satisfaction according to the context of this study.

RESULTS AND DISCUSSION

Overall, 100 replies were received out of 349 questionnaires distributed. Prior to the main analysis, the normality test returned an absolute Z-score that was lower than 3.29, which depicted a normal distribution of the dataset (Kim, 2013). Firstly, the outcome of descriptive analysis for organisational culture and organisational commitment (Table 3) exemplified the hierarchy culture (mean = 3.44) as the dominant culture in vegetable oil refineries in Johor, Malaysia. Meanwhile, AC (mean = 3.32) was rated as the dominant type of commitment among the employees within the context of this study. Next, the data for job satisfaction facets illustrated that the employees in the vegetable oil refineries were mostly satisfied with the nature of work (mean score = 3.69; Table 4). However, based on the overall analysis of the satisfaction status (Table 5), majority of respondents’ (61%) feedback showed a moderate level of satisfaction only. 35 percent of respondents possessed a high satisfaction status, while four percent had a lower satisfaction status.

Table 3: Mean and Standard Deviation of the Variables

Variable	Scale	Mean	SD
Organisational Culture	Clan culture	3.35	0.78
	Adhocracy culture	3.25	0.76
	Market culture	3.41	0.75
	Hierarchy culture	3.44	0.74
Organisational Commitment	Normative commitment	3.20	0.93
	Affective commitment	3.32	0.73

Table 4: Mean and Standard Deviation of Job Satisfaction Facets

Variable	Scale	Mean	SD
Job Satisfaction	Pay	3.37	0.88
	Promotion	3.32	0.82
	Supervision	3.49	0.82
	Fringe benefits	3.32	0.78
	Contingent rewards	3.34	0.81
	Operating conditions	3.15	0.83
	Co-workers	3.39	0.68
	Nature of work	3.69	0.81
	Communication	3.57	0.76

Table 5: Job Satisfaction Status

Status	Frequency	Percentage (%)
Low	4	4
Moderate	61	61
High	35	35

Statistically, a significant positive relationship ($p < 0.01$) between organisational culture and organisational commitment was apparent amongst all the scales of both variables (Table 6). The highest correlation was noted between adhocracy culture and NC ($r = 0.788$). On the contrary, the connection between market culture and AC had the lowest correlation ($r = 0.591$). These results affirmed the significant association between organisational culture and organisational commitment amongst workers in the vegetable oil refineries in Johor, Malaysia; therefore, the alternative hypotheses were accepted.

Table 6: Pearson Correlation Results for Organisational Culture and Organisational Commitment Scales

		Normative Commitment	Affective Commitment
Clan Culture	Pearson Correlation	.720**	.598**
	Sig. (2-tailed)	.000	.000
	N	100	100
Adhocracy Culture	Pearson Correlation	.788**	.631**
	Sig. (2-tailed)	.000	.000
	N	100	100
Market Culture	Pearson Correlation	.726**	.591**
	Sig. (2-tailed)	.000	.000
	N	100	100
Hierarchy Culture	Pearson Correlation	.755**	.604**
	Sig. (2-tailed)	.000	.000
	N	100	100

**Correlation is significant at the 0.01 level (2-tailed).

A further multiple regression analysis was done to examine the association of organisational culture and organisational commitment with job satisfaction based on the perspective of this research. Four models were tested that analysed (1) dimensions of organisational culture with job satisfaction, (2) dimensions of organisational commitment with job satisfaction, (3) organisational culture and organisational commitment with job satisfaction, and (4) an adjusted regression analysis based on the demographic profile. A summary of the analysis is provided in Table 7 to Table 9. The linear regression attested the significant association ($p < 0.001$) of organisational culture and organisational commitment with job satisfaction in overall. Model 1, a simple linear regression, showed that only clan culture is significant with job satisfaction among the organisational culture dimensions and increased employees' job satisfaction by 39.2% ($\beta = 0.392$, 95% CI = 0.12- 0.54). Similarly, Model 2 illustrated that normative commitment greatly increased job satisfaction by 60.7% ($\beta = 0.607$, 95% CI = 0.30-0.57) followed by affective commitment by 27.0% ($\beta = 0.270$, 95% CI = 0.07-0.41). Meanwhile, Model 3 explained that organisational culture and organisational commitment independently increased job satisfaction by 47.4% ($\beta = 0.474$, 95% CI = 0.31–0.56) and 48.0% ($\beta = 0.480$, 95% CI = 0.29–0.52), respectively. Additionally, Model 4, an adjusted linear regression for gender, age, education level, and number of years with the company, confirmed that organisational culture and organisational commitment were independent and significantly associated with employee job satisfaction.

Table 7: Regression Result of Organisational Culture with Job Satisfaction

Model	Variable	Dimension	Unstandardised Coefficients		Standardised Coefficients	95.0% Confidence Interval		Sig.
			B	Std. Error	Beta ^a	Lower Bound	Upper Bound	
1	OC	Clan Culture	.332	.104	.392	.124	.539	.002
		Adhocracy Culture	.176	.140	.201	-.101	.454	.210
		Market Culture	.176	.133	.200	-.088	.441	.189
		Hierarchy Culture	.083	.136	.092	-.186	.352	.542

OC = organisational culture; a = dependent variable: job satisfaction

Table 8: Regression Result of Organisational Commitment with Job Satisfaction

Model	Variable	Dimension	Unstandardised Coefficients		Standardised Coefficients	95.0% Confidence Interval		Sig.
			B	Std. Error	Beta ^a	Lower Bound	Upper Bound	
2	EOC	Normative Commitment	.435	.068	.607	.300	.569	.000
		Affective Commitment	.244	.086	.270	.074	.414	.005

EOC = employee organisational commitment; a = dependent variable: job satisfaction

Table 9: Regression Analysis Result of Organisational Culture and Organisational Commitment with Job Satisfaction

Model	Variable	Unstandardised Coefficients		Standardised Coefficients	95.0% Confidence Interval		Sig.
		B	Std. Error	Beta ^a	Lower Bound	Upper Bound	
3	OC	.437	.064	.474	.31	.56	.000
	EOC	.403	.058	.480	.29	.52	.000
4	OC	.438	.066	.475	.31	.57	.000
	EOC	.400	.060	.477	.28	.52	.000
	Gender	.036	-.066	.027	-.09	.17	.586
	Age	.037	.046	.050	-.05	.13	.427
	EL	.004	.031	.007	-.06	.07	.889
	NOY	-.015	.031	-.029	-.08	.05	.635

OC = organisational culture; EOC = employee organisational commitment; EL = education level; NOY = number of years with company; a = dependent variable: job satisfaction

The Level of Organisational Culture and Organisational Commitment

This study has demonstrated that the hierarchy culture was the leading organisational culture in the vegetable oil refineries, as also reported in Shurbagi and Zahari (2014). Twati and Gammack (2006) has explained that most organisations practise different cultures in succession. For example, a firm begins with clan culture, then moves to adhocracy culture, followed by

market culture, and lastly practises the hierarchy culture when the firm has been around for some time. The investigated vegetable oil refineries were mostly established in the early 1990s, whereby at the current point of time, the firms fit into the hierarchy culture. Other than that, AC as the dominant employee commitment type demonstrated that workers in the vegetable oil processing industry have emotional attachment and involvement with their company and this revealed they had satisfied their needs and feel they belong in the company. Past investigations by Shurbagi and Zahari (2014), Dhaifallah (2016), and Carmeli and Freund (2004) reported similar results.

The Status of Employee Job Satisfaction

In terms of job satisfaction analysis, workers in the vegetable oil refineries described themselves as mostly satisfied with the nature of work. In the job satisfaction context, nature of work means the gratification of the job tasks itself. Commonly, workers are satisfied when they carry out tasks that interest them besides having a job that meets their skills and knowledge. An exciting and attractive job will encourage workers to learn and improve themselves, whereby the motivation will further boost the degree of satisfaction towards the job (Haluk, 2008). Meanwhile, the moderate satisfaction status reasonably supported the findings of previous surveys of Christina (2017) and Jobstreet.com (2015) that observed an employee satisfaction level at a lesser degree. This is explainable in terms of the workplace nature of the vegetable oil manufacturing sector itself. According to Brockmann and Birkholz (2014), vegetable oil processing is characterised by mass production with a flat organisational hierarchy, high span control, high formalisation, and employees have less opportunity to voice out their concerns. Thus, the nature of work in labour-intensive industries creates a professional culture amongst the workers in the same manner as an organisational culture based on external and internal pressures. This condition can result in depression among employees that affects their job satisfaction.

The Relationship between Organisational Culture and Organisational Commitment of Employees

The positive and significant relationships among every dimension of organisational culture and employee commitment concur with past

studies (Acar, 2012; Brewer & Clippard, 2002; Messner, 2013; Shim, Jo & Hoover, 2015) that have shown organisational culture as a key means to improve employee commitment. Besides, the highest correlation was determined to be between adhocracy culture and NC. Caroline *et al.* (2018) have reported the significant and positive correlation between these two variables in Brazil's banking sector even though the results did not state the degree of correlation. In contrast, Selden (2014) reported only a moderate correlation between adhocracy culture and NC among college and university counsellors and advisors. An adhocracy culture type organisation stresses on flexibility, encourages extensive participation by workers, teamwork, and empowerment in achieving organisational goals. Workers will then feel they owe the organisation and thus would feel obliged to continue working there due to internalisation of a loyalty norm (Acar, 2012). As such, the highest correlation between adhocracy culture and NC is rationalised. On the other hand, market culture focuses on a solid presence in a competitive setting with the aim of profiting, hence, the capability of a market culture type organisation in gaining an emotional commitment from their members is much weaker.

The Association of Organisational Culture and Organisational Commitment with Employee Job Satisfaction

Model 1 of the regression analysis evidenced the significant connection between clan culture and employee job satisfaction. This is explicated by the clan-oriented culture that emphasize on open communication, human work environment, collaboration, cohesion, empowerment and people development (Homayoun *et al.*, 2013). This result corroborated that of past investigations (Al-Shammari & Al-Am, 2018; Batugal, 2019; Fikry, Adi & Arie, 2020; Tran, 2021) that reported a positive and significant connection between the two variables. Moreover, this outcome implies that when organisations focus importance on employee's value, it enhances the degree of job satisfaction which determines the decision to tolerate the firm, and hence, the culture of a firm is a satisfaction predictor (Chan, Wong & Saodah, 2017). Although the positive connection between these two variables has been confirmed by previous studies in various industry settings such as banking, construction, academic (Salman *et al.*, 2014; Maryam, Bader & Mohd, 2017), and others, this result additionally supports that, regardless of the industry's nature, organisations that value flexibility over stability and

control as well fulfil employees needs than shareholder's desire eventually improve job satisfaction (Fleury, Grenier, Bamvita & Farand, 2018).

Next, Model 2 of the regression analysis demonstrated the significant association between every dimension of organisational commitment and job satisfaction, whereby the results aligned with past research (Garima & Megha, 2013; Gunlu, Aksarayli & Percin, 2010; Saimir & Jonida, 2013), which established the association between the two variables in other fields of study. In addition, this also aligned with the results of Bateman and Strasser (1984), who viewed that the cognitive view of organisational commitment was rationalised by ensuing attitudes, i.e. job satisfaction. Highly committed employees possess a strong belief in achieving organisational goals as they gain the happiness and positive experiences that drive performance (Rashmi, Meghna & Goodman, 2017). Saridakis, Rebeca, Torres and Gourlay (2018) have substantiated that a greater organisational commitment leads to an increased job satisfaction level.

On the other hand, Veronica and Dorothea (2015) have explained organisational culture and organisational commitment as significant predictors in producing a contented workforce. The analysis outcome of Model 3 evidenced the significant independent association between organisational culture and organisational commitment with job satisfaction. This result supports previous studies that confirm the same (Shurbagi & Zahari, 2014; Raed, 2016). Although the association of both the variables with job satisfaction was significant, organisational commitment had a substantially more unique contribution than organisational culture. Meanwhile, model 4, an adjusted regression analysis for demographic profile, attested that the effect of organisational culture and organisational commitment as confounders of job satisfaction remained the same.

CONCLUSION

Since job dissatisfaction negatively affects business performance, the results of this research can greatly benefit organisations. From a practical viewpoint, this study has essentially provided employers with key information to assess the culture in their company to form committed organisational members and simultaneously enhance factors which influence workers' job satisfaction.

Furthermore, the management can make cognizant decisions to attain an increased job satisfaction level. Concerning the business environment, the insights of this study are anticipated to aid companies in developing new policies and practices valued by employees that influence commitment and job satisfaction, which will yield improved business results and create a competitive advantage. Each organisational member's perception of their company could differ, even though the company is seeking to develop culture and instil commitment to have productive employees.

This study has several limitations that must be considered when interpreting the results. Firstly, since the respondents were workers from Pasir Gudang only, further investigations on oil refineries in the other Malaysian states could be considered before firmly reasoning the findings. Other than sample-associated limitations, within the scope of this research, the impact of demographic variables like gender and age on job satisfaction was not specifically examined, even though past studies have highlighted the significance of perceived job satisfaction according to the demographic factor (Gjuraj, 2013; Bellou, 2010). Besides, this study's response rate was only 28.7% and thus could limit the operationalisation of the results. Hence, further research is necessary to adapt these limitations within the context of Malaysia's vegetable oil processing sector.

In consideration of these findings, future research may consider analysing the organisational culture, organisational commitment, and job satisfaction of employees in the vegetable oil processing industry from different theoretical perspectives, as different theories possess its own purposes and implications. Besides that, exploring the three variables in a bigger population in the vegetable oil processing sector will provide a comprehensive understanding of managing employees' job satisfaction. Future studies in these aspects will be vital for both scholars and industry practitioners.

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