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A Systematic Review of Employee Turnover Antecedents in the Construction Industry

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Abstract

High turnover is regarded as a failure to fulfil work-life balance, among the approaches to improve employees life quality. This paper conducted a systematic literature review, offers an overview of the present state of research concerning the turnover antecedents in the construction industry. Through the Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA), this paper concluded that work-life quality is due to organisation, individual and external antecedent. The recommendations, including the development of life quality strategy and to conduct more employee turnover. This paper assists in improving employees life quality through the identification of adverse outcome of turnover.

Keywords: Construction industry; Employee Turnover; PRISMA

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1.0 Introduction

Employee motivation to stay in an organisation depends on the motivation factors. There are various motivation theories that can be relied on. Among those theories, the present study adopts the Maslow theory of need to frame the research flow. The theory that introduced by Abraham Maslow in 1943 proposed human motivation according to five hierarchies of need, to be achieved according to its level. Within the scope of this paper, this theory that considers human needs, as motivation to stay is relevant. It is necessary to determine whether aspects of human need, as proposed by Maslow are met before the quality of life achieved. Currently, work-life balance is a trend in the labour market. Among the reason for demotivation is lack of life quality. According to Rastogi, Rangnekar, & Rastogi (2018), quality of work-life has strong implication to employee outcome while (Meharunisa, 2019) points stress factor from human resource management (HRM) practice including inappropriate pay structure and hectic work schedule. Therefore, it is needed to explore the effect of this circumstance.

In the Malaysian construction context, this aspect is defined clearly in the survey executed by Construction Industry Development Board (CIDB). According to the survey, in the year 2015 revealed that 14% responds (102 respondents) require work-life improvement (Ipsos Loyalty, 2016). Followed by another survey in 2017, about 66% (295 respondents) require improvement on employment benefits package offered by the construction organisation in Malaysia (Ipsos Loyalty, 2017). This situation postulate where there is issue of imbalance between work and life (Madihie & Siman, 2016; Ofori, 2015; Worrall, Harris, Stewart, Thomas, & McDermott, 2010) thus, allow for negative employee outcome including employee turnover (Frufrek & Pansanato, 2015; Leung, Chan, & Olomolaiye, 2008; Sang, Ison, & Dainty, 2009). Repetition of such events is seen as crucial if no suitable approach developed. High turnover rate found as

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a result of lacking in retention strategy within the organisation (Dierendonck, Lankester, Zmyslona, & Rothweiler, 2016; Firth, Mellor, Moore, & Loquet, 2004; Kshirsagar, 2016; Lim & Ling, 2012; Pablo, Donate, & Pen, 2016; Yaghi, 2016; Zhang, Ma, Xu, & Xu, 2018). Therefore, in order to address the turnover issue, a viable retention strategy has to be developed after determining its antecedents.

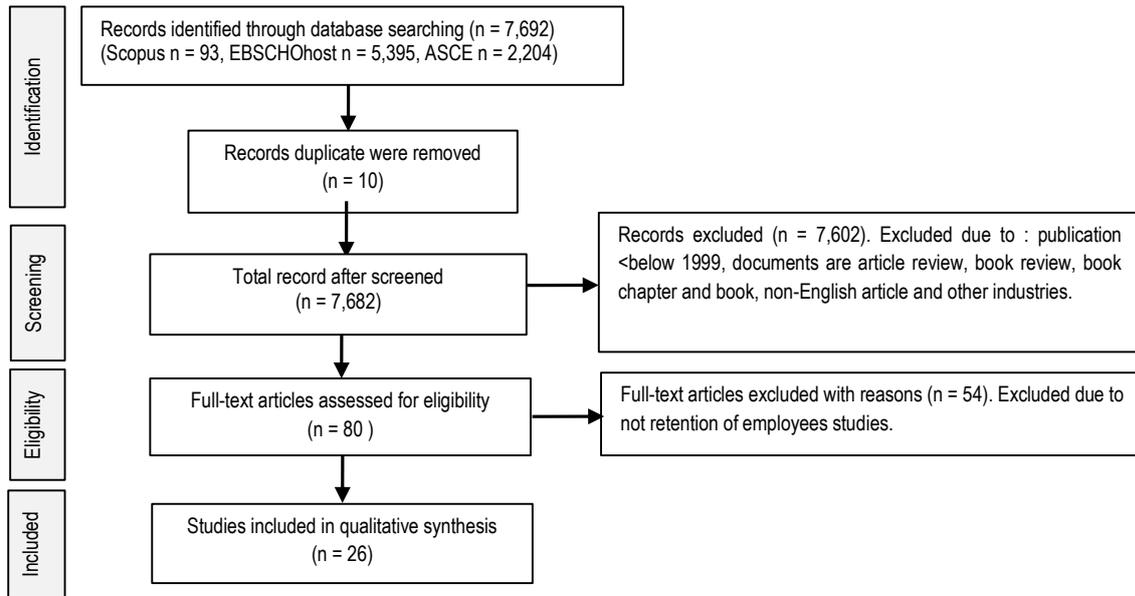


Fig. 1. The workflow diagram of the study

Various factors are identified as construction project success factors, which competent personnel is involved (Mezher & Tawil, 1998; Mohamed, Abuazoom, Hanafi, & Ahmad, 2017; H. T. Nguyen & Hadikusumo, 2017; L. D. Nguyen, Ogunlana, & Lan, 2004; Pournader, Tabassi, & Baloh, 2015; Tabassi & Bakar, 2009). Therefore, this paper seeks clarification on antecedents of this circumstance, through the systematic literature review approach. The approach was initiated as early as in the year 1889. Relevant studies are identified through a systematic review approach through predefined research questions (Shaffril, Krauss, & Samsuddin, 2018). This study began with a research question – what are the antecedents of employees turnover?

2.0 Methodology

In order to retrieve articles related to employee turnover, the Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) was employed. The PRISMA offers a systematic approach of literature review by incorporating four stages: identification, screening, eligibility, and inclusion (Moher, Liberati, Tetzlaff, & Altman, 2009) which is often utilised in medical, agricultural, and psychological fields based on searching in SCOPUS database through the search string of TITLE-ABS-KEY ("systematic review") AND (PRISMA)). The four stages of PRISMA approach were adopted in this study and illustrated at **Error! Reference source not found.**

2.1 Resources

Due to limited access to other databases (Web of Science), only three databases were utilised as sources in this study to identify relevant articles; Scopus, EBSCOhost, and American Society of Civil Engineers (ASCE). Scopus was the first database used to search for articles, and it is one of the largest databases with peer-reviewed literature that contain 39,467 journals from multiple disciplines. The second database, EBSCOhost, has massive research coverage in vast disciplines. Meanwhile, ASCE, the final database used, focuses on engineering and construction domains with 38 journals.

2.2 Eligibility & Exclusion Criteria

Inclusion and exclusion criteria were developed to determine relevant articles prior to the review (Moher et al., 2009). Four criteria were developed; timeline, document type, language, and subject terms (see Table 1). Articles published in the last decade (1999-2019) were selected to cater to recent findings Articles, and conference proceedings with empirical data were included. Articles written in English were selected. Lastly, the subject criteria of employment and construction industry were embedded to synchronise with the study objective.

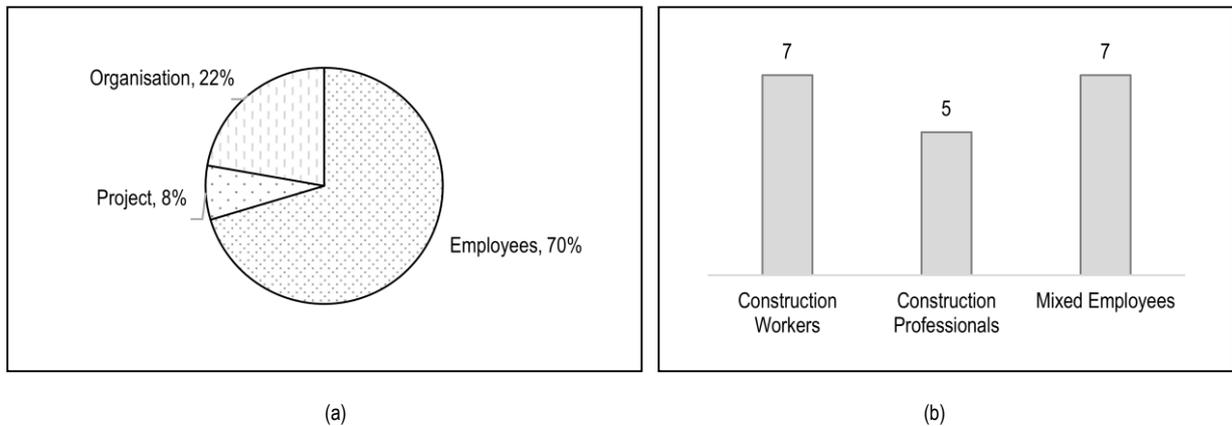
Table 1. The Inclusion and Exclusion Criteria

Criteria	Inclusion	Exclusion
Timeline	1999-2019	Below 1999
Document types	Journal article and conference paper (research article/empirical data)	Journal article and conference paper with systematic review or literature review, book series, book chapter and book.

Language	English	Non-English
Subject terms	Employment related	Non-employment
Industry	Construction	Other industry

Table 2. The search string used for the systematic review process.

Resources	Search string/Query string
Scopus	TITLE-ABS-KEY (employee*) AND ("retention* OR stay OR leave OR turnover OR quit") AND ("construction industry")
EBSCOhost	(employee*) AND (retention* OR stay OR leave OR turnover OR quit) AND (construction industry)
ASCE	"employee" AND (retention* OR stay OR leave OR turnover OR quit) AND "construction industry"



. Fig. 2. (a) Samples of Article; (b) Distribution of Employees Samples

2.3 Systematic Review Process

The systematic review was conducted between February and March 2019. The process flow is displayed in **Error! Reference source not found.** above. In the first stage, articles were identified from the three databases using the following keywords: (employee*), ("retention* OR stay OR leave OR turnover OR quit"), and ("construction industry") (see Table 2). The keywords were identified from prior studies, thesaurus, as well as any keyword similar and related to employee turnover. Three review authors managed the articles searching process in three databases. As a result, ten duplicate articles were discarded during the screening process in the second stage.

2.4 Data Abstraction and Analysis

Initially, the review began by placing focus on the abstract. The articles were read in detail to determine if they were in line with the study objective. Review process was performed in which the authors were required to review included articles from other authors. The purpose of this approach is to reduce biasness in the process (Liberati et al., 2012). The findings of the review were discussed, and the final findings were concluded upon agreement from all authors. Qualitative content analysis was performed to identify employee turnover determinants related to employee turnover antecedents through Atlas.Ti Version 8-Computer Assisted Qualitative Data Analysis Software (COQDAS). This approach allowed the findings to be summarised in a tabulated form within the context of the social science domain (Bronson, & Davis, 2012).

3.0 Result

3.1 Sample of Reviewed Articles

Three sample groups were determined, as illustrated in **Error! Reference source not found.**(a). In the first group, the sample of employees involved general workers, construction professionals, and mixed employees as shown in **Error! Reference source not found.**(b). The other two sample groups were construction project and construction organisation, respectively. Apart from the mentioned sample groups, four studies appeared to focus on gender in determining employment turnover issue. Hence, the sample of reviewed articles had been varied, so as to allow different dimensions on the research subject.

As part of the timeline inclusion criteria, the review included publications derived from the past decade. The highest number of articles (four and three articles) had been produced in 2015 and 2007, respectively, while the other years produced two articles (2019, 2017, 2016, 2013, and 2011) and one article (2018, 2014, 2012, 2010, 2009, 2008, 2006, 2005, and 2000). The years that did not publish any related article were 2004, 2003, 2001, and 1999. **Error! Reference source not found.**(a) displays the imbalance number of publications with the highest publications of turnover research in the construction industry in the year 2015. In term of research design, most of the

reviewed articles adopted the quantitative approach, as shown in **Error! Reference source not found.**(b) below. The other two approaches, qualitative and mixed-method, were low for implementation with four and three articles, respectively.

3.2 Employee Turnover Antecedents

Table 3 presents the results retrieved from the review exercise. Three themes were identified from the content analysis process with eight subthemes, including organisation (five), personal (three), and another theme that stood alone. The following section elaborates the findings focuses on employee turnover antecedents.

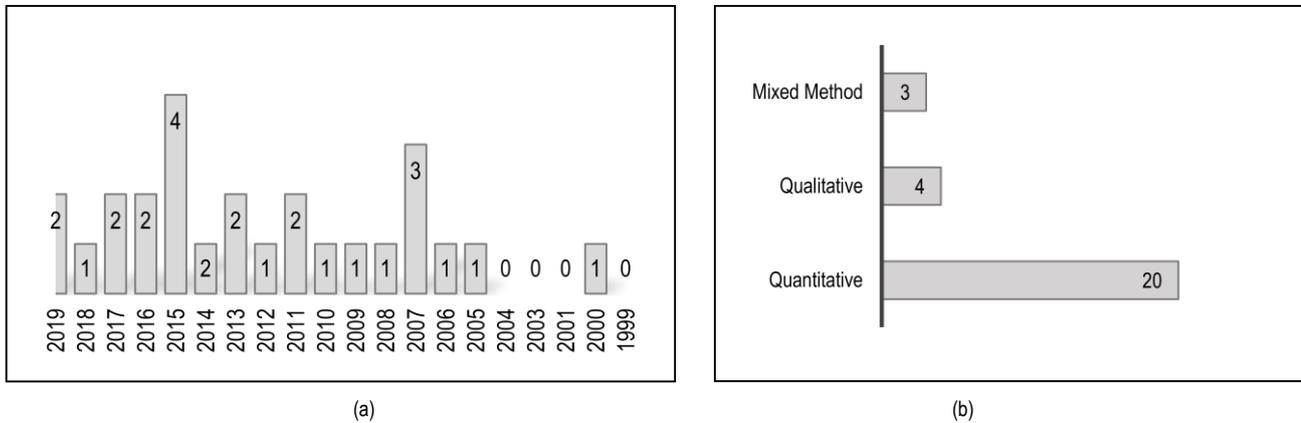


Fig. 3. (a) Year of Publication; (b) Research Design

Table 3. Review Finding

Authors	Year	Method	Sample	Organisation							Individual			External		
				M	C	H	TD	EE WH	JR	WE	D	CM	COM			
Shikweni	2019	QL	Organisation													✓
Koundinya	2019	QN	Construction Workers										✓	✓		
Morello	2018	QN	Construction Professionals	✓	✓		✓		✓				✓			✓
Zhu	2017	QN	Construction Workers							✓					✓	✓
Childs et al.	2017	MM	Organisation		✓	✓										
Shan	2016	QN	Construction Workers													
Loganathan	2016	QL	Mixed Sample		✓			✓		✓						
Zhang	2015	QN	Construction Professionals									✓	✓			
Medbø	2015	QN	Mixed Sample	✓					✓				✓			
Oswald	2015	QL	Construction Workers													✓
Adogbo	2015	MM	Mixed Sample	✓												✓
Park	2014	QN	Organisation	✓	✓				✓				✓	✓		
Malone	2013	QN	Mixed Sample										✓			
Rojas	2013	QL	Mixed Sample		✓		✓			✓	✓					
Kim	2012	QN	Project		✓					✓			✓			
Hee	2011	QN	Construction Professionals	✓			✓			✓						
Rivas	2011	QN	Project	✓	✓			✓					✓			
Jones	2010	QN	Organisation										✓			✓
Sang, Ison & Dainty	2009	QN	Construction Professionals	✓				✓					✓			
Clarke et al.	2008	QN	Organisation													
Melia	2007	QN	Construction Workers	✓												
Yip	2007	QN	Construction Professionals	✓			✓			✓						
Lingard	2007	MM	Construction Workers					✓								
Du	2006	QN	Construction Professionals	✓	✓		✓			✓			✓		✓	
Keen	2005	QN	Mixed Sample				✓									
Schnake	2000	QN	Construction Workers	✓												

QL = Qualitative
 QN = Quantitative
 MM= Mixed Method
 M = Management
 C=Compensation
 H = Hiring
 TD=Training & Development
 EE=Employee Engagement
 WH=Working Hours
 JR=Job Related
 WE=Working Environment
 D=Demographic
 CM=Commitment
 COM=Communication

• Organisation Antecedents

This section involve antecedent that lie under the capacity of the organisation. The following sections explain finding as follows; the organisation management, compensation, hiring, training and employee engagement.

Organisation Management

Organisational contributions to employee turnover are undeniable. Generally, resources management is required to explore the internal factors of an organisation that may affect turnover. Shikweni et al., (2016) claimed that in-depth exploration of internal organisation factor is crucial due to its significant impact on turnover (Sang et al., 2009) including commitment (Park, Christie, & Sype, 2014) and job satisfaction (Du, Zhou, Liu, & Picken, 2006). A crucial management factor refers to a leader/supervisor. The role of a supervisor can effectively reduce turnover (Jebensa, Medbøa, Knutsenb, Mamenc, & Veiersted, 2014; Rivas et al., 2011) and enhance job satisfaction

(Adogbo, 2015; Hee, & Ling, 2011). Jebensa et al. (2014) asserted that the role of a leader could determine employee job satisfaction and hinder turnover. A supervisor can become a good leader by leading the way through positive leadership style (Morello, Issa, & Franz, 2018). According to (Morello et al., 2018) and Hee and Ling (2011), employees may have specific demands in their line of job and failure to satisfy their needs may result in workers leaving the organisation (Meliá, & Becerril, 2007). Previous studies also reported that job security also contributes to turnover. This finding affects one emotionally, thus can lead to lack of competencies among employees (Yip, & Rowlinson, 2009).

Compensation

Compensation is one reason employees work in organisations as part of their needs. Pay, which refers to basic compensation of employment package, is vital for construction industry employee turnover (Loganathan & Kalidindi, 2016; Rojas, 2013). It can be concluded that employees perception towards organisation is better (Park et al., 2014) through the increment of the compensation package (Kim & Philips, 2012; Park et al., 2014). This situation assists in combating employee expectation towards compensation package, links to turnover directly (Rivas et al., 2011). Even so, the contribution to turnover can also be seen through the role of employee satisfaction, whereby compensation in the form of reward is one of the antecedents (Du et al., 2006). Despite the fact of job satisfaction, it is needed to allow for equal opportunities since the industry is male-dominated, where gender discrimination always be the turning point (Morello et al., 2018). Evidence shows that due to better pay offer from other organisations, workers leave the organisation with the same position (Loganathan & Kalidindi, 2016; Rivas et al., 2011) or leave the profession (Sang et al., 2009). Childs, Weidman, Pe, and Christofferson (2017), and Rojas (2013) found that minimizing pay issues as an effective way to offer competitive pay with market-rate, where employees can no longer manipulate their payroll while improving job satisfaction.

Hiring Process

The concept of turnover is associated with hiring process. The use of hiring to hinder turnover issue was investigated by (Childs et al., 2017), who explored personality profile assessment that determined if the prospective employees fit for the position.

Training and Development

The need for training and development as part of turnover factors has been proven. Employees need specific skills for their position so that they will remain in the organisation (Rojas, 2013). In career advancement dimensions, employees tend to stay if they feel that they can climb the career ladder. For that purpose, the element of equal opportunities is crucial to feeling being treated fairly in the organisation (Morello et al., 2018). Otherwise, the employee may opt for other alternatives to meet his career progression (Hee & Ling, 2011). The need to get professional licensing is also a factor that allows career progression (Keen, 2011). It is better to consider career progression opportunities or employees may end up feeling burnout (B. Yip & Rowlinson, 2009) and dissatisfied (Du et al., 2006).

Employee Engagement

Working Hours - Several issues stem from the demand of long working hours. Hence, Rivas et al., (2011) suggested better work system since this aspect can affect employees productivity. Another issue related to work-life balance is the concern for construction employees. Despite variance in the sample, the issue of work-life balance is an essential factor in determining their retention in the organisation. For instance, women construction employees required improvements to cater the family needs (Morello et al., 2018). General employees also prioritise between work and life (Loganathan, & Kalidindi, 2016). The turnover issue is associated with work-life imbalance through job satisfaction (Sang et al., 2009). Lingard et al., (2007) prescribed attaining a balance between the demand of work and life through alternative working hours; compressed work-week, which gained positive feedback from the sample

Job Related - One job-related factor involved in turnover could be the workload. Job system that focuses on reasonable workload promotes loyalty (Zhu, Zeng, Li, Zhu, & Zhang, 2017). This notion is supported through the interesting job that is designed to reduce specific preferences, such as exposure to mechanical settings (Jebensa et al., 2014) and proper coordination of work to enhance motivation (Rojas, 2013). Poor coordination in the work setting is bound to affect emotional exhaustion due to excessive workload (Yip, & Rowlinson, 2009). Another job-related turnover factor refers to job autonomy (Park et al., 2014) such as empowerment through the decision making involvement (Hee & Ling, 2011). Another related job factor is the team size, wherein a reduction in team members can lead to massive turnover of the team (Kim & Philips, 2012).

Work Environment - Work environment factors such as lack of facilities provided in the organisation contribute to turnover. (Loganathan, & Kalidindi, 2016). However, it has been argued that poor practice of work environment does not necessarily result in employee leaving directly, but it is closely linked with employee motivation (Rojas, 2013) and job satisfaction (Du et al., 2006). These factors should be considered in formulating efficient human resource management. Besides, employees prioritise distance from their workplace (Loganathan, & Kalidindi, 2016; Kim, & Philips, 2012; Rojas, 2013). Loganathan (2016) asserted that although workplace distance that causes employees to commute daily may reduce termination issue, it still remains as a contributor to turnover.

• Individual Antecedents

Demographics

Demographic involves a variety of elements, such as gender, personal status, age, years of service, education level, position, and organisation types (union/non-union). In fact, the demographic attributes have changed within these two decades. This factor was

verified to have no link with turnover (Du et al., 2006) in the first decade of articles publication, whereby this notion was later opposed. Some demographic factors are closely related to turnover determinants, such as age (Jebensa et al., 2014; Morello et al., 2018), position (Kim & Philips, 2012), years of service with the organisation/tenure (Rivas et al., 2011; Jones, Ross, & Sertyesilisik, 2010), type of employees (Park et al., 2014; Sang et al., 2009), and personal status (Morello et al., 2018).

Commitment

Data from several sources pointed out the influence of commitment and turnover within the construction industry (Koundinya, 2019; Malone & Issa, 2012; Park et al., 2014; J.-C. Zhang, Ling, Zhang, & Xie, 2015). Apart from the direct effect to turnover, commitment also affects work engagement (J.-C. Zhang et al., 2015), organisational practice (i.e. termination practice, types of organisations, and compensation), as well as individual ability (Park et al., 2014).

Communication Skills

The role of communication has been cited as a turnover factor. The findings concluded that communication could be treated differently among different occupational groups within the construction domain. According to (Zhu et al., 2017), this factor contributes to only personal interests. Communication has been confirmed to have a correlation with job satisfaction, which contributes to turnover intention negatively amidst sample of managerial and technical staff (Du et al., 2006). Generally, the outcome is similar, but the angle of usage differs depending on occupational thinking due to variances in education level.

External Antecedents

Recent studies have reported that external factors contribute to turnover issues through economic situation (Shikweni et al., 2016), an environment of project location, economic conditions, social security, medical services (Zhu et al., 2017), language barrier (Zhu et al., 2017), language barrier (Oswald, Sherratt, & Smith, 2015), regulatory (Adogbo, Ibrahim, & Ibrahim, 2015; Shikweni et al., 2016), labour market demand (Shikweni et al., 2016), alternative job/job offer (Jones et al., 2010), and networking (Morello et al., 2018).

4.0 Discussion

This study assessed employee turnover antecedents in the construction industry systematically. A rigorous review sourced from three databases resulted in 26 related articles. The results showed that employee turnover study has less priority in the construction domain. As mentioned earlier, human motivation requires concern in all need aspect. Thus, through the identification of turnover antecedent, the improvement in the quality of work-life can be achieved while avoiding negative outcome (Rastogi et al., 2018) and increase HRM practices (Meharunisa, 2019). From the analysis, it can be conceptualized that to maintain employee positive outcome, work-life quality should be maintained, as shown in **Error! Reference source not found.** below. Within the scope of this review, three themes and nine sub-themes had emerged. Thus, three themes of turnover antecedents are identified and could be the basis of life quality strategy development. The organisation, individual, and external determinants are the three main turnover determinants, whereas management, compensation, training and development, employee engagement, demographic, commitment, and communication are the sub-themes. It was found that the organisation is crucial determinants as compared to the other two other themes.

5.0 Conclusion & Recommendation

The systematic review highlights important turnover antecedents in the construction domain. This paper suggests recommendations for future studies in two scopes. The review suggests new directions for future research in employee turnover towards improving employee work-life balance as part of the life quality strategy in the construction industry. In terms of improving work-life, identification of employee turnover antecedents could assist in the development of life quality strategy. However, due to limitation of this topic in construction industry research, current findings should be the platform to undertake more research in this area in future by considering several recommendations as follows; to perform more turnover-related research in the construction industry, professional employees as a sample; and to consider more qualitative or mixed-method approaches

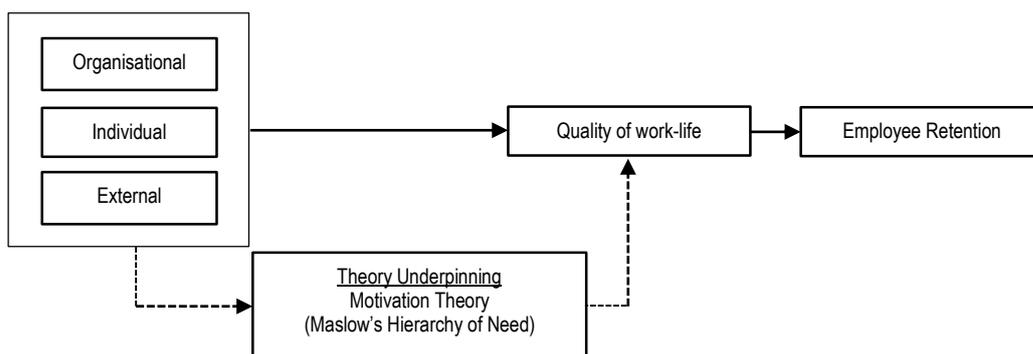


Fig. 4. Conceptual Framework

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