



Explore Skilled Labour Shortage of Carpenters in Sri Lanka: Through the Lens of Participants Employed in Furniture Manufacturing Industry

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Authors' contributions

This work was carried out in collaboration between both authors. Both authors read and approved the final manuscript.

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ABSTRACT

Skilled labour shortage that is prevailing in the current context has made lot of adverse economic and social repercussions, more or less to all sectors in Sri Lanka. The purpose of this study is to explore the skilled labour shortage of carpenters in Sri Lankan furniture manufacturing industry through the lens of participants that are involved. This includes exploring the support mechanisms in place for carpenters in Sri Lanka. This study used qualitative research approach. Purposive sampling technique and semi-structured interviews were utilized to collect data from 12 (male) participants including timber firm owners, the current working employees in timber firms and the retired/ resigned employees. The theory of proximal similarity was adopted to connect the study's characteristics and the characteristics of the group under study. Findings from the interviews grouped into key themes namely unsustainable income, lack of social prestige and infertile apprenticeship program. The sub-themes included earning capacity, high risk job, and visible career path and so on. These themes considered in relation to the existing and future implications

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for the industry. The findings of the study provide valuable insight which is necessary furniture manufacturing industry to develop and train future carpenters capable of sustaining the Sri Lankan furniture manufacturing industry. Furniture manufacturing industry has a potential to generate attractive export earnings however received less attention on its skilled labour shortage issues.

Keywords: Skilled labour shortage; furniture manufacturing industry; qualitative approach; carpenters.

1. INTRODUCTION

The problem of skilled labour shortage was being prevailing in manufacturing sector over the years and it is not a new thing to this sector anymore because it has made a massive challenge to retain both skilled and unskilled labour in all large and small operations [1]. The Global manufacturing industry has majorly concerned about labour shortage for the past seven quarters and have identified that these shortages are high among the workers with technical skills [2]. It has estimated that more than 2.4 million manufacturing jobs will be unfilled over the next decade and these skill shortages could risk the world economic output by \$454 billion by 2028 [3]. William [4] opined the four reasons to grow demand for skilled labours namely the corresponding relationship between labour and capital; the rapid changes in technology; changes in the job structure with regard to economic openness and competitiveness; and foreign investment. In addition, demand for skilled labour predominantly depends on the remuneration and availability of workforce in line with the industry requirements [5]. While the lasting impact of COVID-19 remains to be seen, the long-standing fact remains that there's an enormous disparity between number of people entering to manufacturing jobs and the needs of the industry [6]. Thus, it is evidence that both in developed and developing countries the demand for skilled labour has increased.

As a developing country, skilled labour shortage is among the greatest challenges facing Sri Lanka's manufacturing industry [7]. Since, the manufacturing industry in Sri Lanka mainly relies on labour, shortage of skilled labour becomes the main obstacle that could probably hinder the industry's growth and being sustainable. However, the Central Bank Annual Report [8] shows that the overall unemployment rate in the country has recorded 4.8 per cent in 2019, it was increased from 4.4 per cent in 2018. Moreover, Department of Census and Statistics [9] opined that youth unemployment rate recorded 22.4 percent in 2020, which was 19.4 percent in 2019. And it specifically insisted that youth unemployment rate is higher among the

educated group and the highest unemployment rate is shown among the new youth who enters to the labour force after completing their higher education. Over the years Sri Lanka's unemployment rates tend to increase and main industries like manufacturing and agriculture are experiencing skilled labour shortages [8], which will be a critical sign in the labour shortage visibility within the current contexts.

Furniture manufacturing industry is one of the main components in the manufacturing sector of Sri Lanka [8]. This industry includes saw milling, timber preservation and seasoning, timber manufacturing, wood-based panel production, timber depots, timber factories timber outlets etc. Although this industry has been spread all over the country, it is famous or mainly can be seen in the city of Moratuwa. The majority of the wood product manufacturing companies are small and medium scale enterprises and 95% of the ownership of this industry is comprised with private sector with less government involvement. Over the past decade, the exports of wood products have increased and that shows a growth potential in this sector to the country [10]. However, the overall manufacturing of furniture showed tremendous declining; in 2018 a decline of 13.9 per cent and 14.8 per cent in 2020 [8]. Owing lower level of wood productions leads into a slow progress in the furniture manufacturing industry, and it shows a comparative downward trend. The furniture that could have been made in the country is now imported from other countries like Vietnam, Malaysia at a larger cost. Bringle [11] insisted that uncontrollable labour shortage has hit the furniture manufacturing industry today and there is no idea about how difficult it would be to find workers for the wood production operations.

Currently, furniture manufacturing firms in Sri Lanka primarily rely on labour (both skilled and unskilled), and most tasks are labour-intensive [11]. Thus, the sustainability of the furniture manufacturing sector is highly dependent on skilled labour to mobilise and enhance the productivity. This resonates with the labour demand survey conducted by Department of Census and Statistics in 2017 that there were

5253 job vacancies for carpenters. The shortage of skilled workers, utmost exclusively the shortfall of carpenters, has been stressed as an area of key concern for the home building sector and house and office furniture. Many firms that engaged in this industry have been closed down or shifted to some other business or a job due to the lack of skilled labour and experiencing troubles in employing the right workers. On the other hand, it is apparent that the Coronavirus pandemic would further aggravate the already existing skilled carpenters' shortage [12]. Considering the imminent effect, this study basically focuses on the skilled labour shortage in furniture manufacturing industry in Sri Lanka.

The prior studies [13,14], specifically in Sri Lanka, concerned on the labour shortage mainly in construction industry due to having substantial investments on large scale capital projects such as high-rise buildings, renovation of airports, ports, roads, highways, land reclamation, water and sanitation [7]. However, furniture manufacturing industry, which is historically valued and has a potential to generate attractive export earnings [11], has received less attention on its labour shortage issues. Since there is a construction boom in the local context with massively funded by local government and foreign investments, this industry is recognized as a high demand sector where a large number of job opportunities can be created. Specifically, apartment projects demand luxury furniture items to complete the interior finishing of the apartment [11]. Although Sri Lanka recorded 4.8 percent unemployment rate, the undisputable fact is that the country, specifically the furniture manufacturing sector, continuously struggle to recruit and retain skilled labour for the sector. As a domestic investment sector, this sector faces a continued severe shortage of labour, specifically carpenters [11]. Thus, it is vital to investigate the reasons behind the skilled labour shortage in the furniture manufacturing industry in Sri Lanka. In other words, it is required to identify the reasons behind why this industry is failed to attract and retain skilled carpenters. On these notes, the purpose of this study is to explore the skilled labour shortage of carpenters in the Sri Lankan furniture manufacturing industry through the lens of employees that are involved in the industry.

2. DETERMINANTS OF SKILLED LABOUR SHORTAGE

Skill shortages is wide-spread problems that occur whenever the current number of workers

with particular skill is lower than the number of jobs requiring these skills. Theory of labour market signaling [15] insists that employees only invest in a signal (i.e. education or training) if the wage gains attached to the signal exceed their individual costs of acquiring this signal. If this condition fails to hold, employee's productive capacity is stagnated and negatively impact with labour productivity. On the other hand, an observable company characteristic (i.e. work atmosphere, participation, corporate culture, career perspectives, personal development, or challenging task) must meet to become a valid signal is that it ought to be closely related to the preferred job characteristics of employees. These company characteristics are indeed used as signals in the labour market for skilled workers, for then organisations with these characteristics would have a competitive advantage on the labour market and should as a result experience lower skilled labour shortage. All these signals then help to explain why some firms are able to attract and retain skilled workers when others are in the context of a [skilled] labour shortage. It is revealed that a firm's ability to fill job openings does not exclusively depend upon monetary issues, rather that job characteristics that foster individual workplace satisfaction provide additional value. Acknowledging the signaling, a number of underlying factors have been highlighted in prior studies, involved in different country perspectives and in different sector or industry perspectives [16]. There are two categories to measure the labour shortage; the first category includes vacancies, hiring, changes in the relative wage, changes in employment and unemployment rates etc. The second category to measure the labour shortage includes employer-based surveys, focus groups and by conducting interviews [17]. In most of the literature identifies demand side factors and supply side factors for labour shortage. Changes in the technology, organization structure, commodity prices and consumer taste identified as the main demand side reasons for the labour shortage; whereas the changes in education, preference for various forms of work, aging population and net out migration identified as the supply side reasons [18].

The inadequacy of the trained personnel is the most significant factor for skill shortage [19]. Internship scheme is a system of training that is undertaking a paid employment with formal work-based training to enhance career development. The companies, who provide a focused training

and education to their employees, will be able to attract, develop and retain them within the firms which help to reduce the impact of labour shortage while building talented, skilled workers for future needs of the firms [20]. Employees tend to feel more confident and well established for their duties after receiving a good training and further the employers ultimately need not spend money and time on workers who are not suitable [21]. Likewise, training is an essential factor for furniture manufacturing industry today. A capable, well-trained employee can be identified by looking at the quality of the finished product with zero mistakes being made and when rework is not required by his or her work [22]. Unfortunately, many of the furniture manufacturing firms' owners are not considered about the importance of giving training for their timber employees which has become a serious repercussion today. Moreover, but firms in particular have financial constraints and limited capacities to facilitate training and skill development.

Motivation is something that comes within the firms that provide their employees with a meaningful, interesting, and engaging work not only contribute them to be active and committed but also it will fulfill the organizations culture and ensures the personal growth [6]. Going with open door policies where all employees are welcome to come and have a chat with the employer will increase social connections between employer and employee that will tend to enhance worker goodwill which is fundamental for their work success and commitment [22]. Unfortunately, at present, many firms tend to ask their employees to constantly work for longer hours to meet the production targets, in return the firms losing their competitive employees. Thus, this will force many manufacturing firms to increase the wages and benefits just to retain their employees [23]. Due to the competitive nature of the furniture industry, many firms often offer their products at low profit margins in order to win the customer demand, which ultimately, has adverse consequences to the potential earning power of carpenters.

Unlike elder generations, many young workers today are not willing to work at low wage rates; however the manufacturing firms' management would prefer to recruit young workers at low wage rates. And this conflict is another reason for the labour shortage problem [20]. Moreover, 80 per cent of the business owners argued saying that it is actually a challenge to manage youth workers than the elder workers where they

demand more in areas like wages, working conditions, time off and so on. This could be clearly reflected in Sri Lanka, by looking at the youth unemployment rate, which was increased to 22.4 per cent in 2020 from 19.4 per cent in 2019 [9]. Thus, it is a crucial challenge to motivate young employees to a particular industry and to sustain the existing skilled worker [24]. Though there are many local bodies to educate and conduct skills training, Sri Lanka is yet to meet its goals of having a local skilled labour carder to support the nation's furniture manufacturing industry. This could be led to recruit foreign workers (from China and India) for employment on certain conditions.

Occupation prestige that is attached to a particular job is also playing a vital role on labour scarcity. The satisfaction of a job may arise more from the prestige which attached, than any other job characteristics [25]. Jones [26] highlighted that during the last recession, two million jobs were lost, and it has forecast that ten million skilled manufacturing jobs were being unfilled, which is mainly due to the collages in UK, teaching their students that those jobs as dirty, boring, and dark. The societal opinions on different professions adversely affect the long-term continuous engagement on jobs, future career progression and wider employment opportunities [27]. Similarly, the nature of work, perception of self-interest in involved with works and cyclical economic demand of unskilled workers make negative impact on retention of vital skilled workers commonly in manual operations [28].

Furniture manufacturing industry is not like other industries, it cannot be operated remotely and the workers should always be on site to perform their duties. With widespread backward and forward connections with other sectors such as construction sector, the furniture manufacturing industry provides vast employment opportunities. By considering the above illustrated factors, addressing the issue of carpenters' could bring about the practical suggestions and strategies to retain skilled workers in the furniture manufacturing industry in Sri Lanka. This would be ascended some of the remedial actions that need to be taken for the betterment of the industry.

3. METHODS

The study explores the skilled labour shortage of carpenters in the Sri Lankan furniture

manufacturing industry through the interpretations of participants employed that are involved in the industry. The study utilized interpretive phenomenological research [29], followed with inductive research approach [30] to add valuable empirical weight to extant conceptual discussion of the skilled labour shortage. The phenomenological method examines subjective human experience. The interpretive (hermeneutic) phenomenology is useful in examining contextual features of experiences that might have direct relevance to practice [29]. This approach is gaining momentum within the skilled labour domain [16] however yet to be applied to the subject of skilled labour shortage. In interpretive phenomenology, it is the interpretation of the narratives provided by participants in relation to various contexts that is foundational like labour shortage domain. Lopez and Willis [31] articulated that, in interpretive approach theory is not used in a formal way; however a theoretical approach can be used to focus the inquiry where research is needed and is used to make decisions about sample, subjects, and research questions to be addressed. Another philosophical assumption underlying the interpretive phenomenological approach is that expert knowledge on the part of the researcher is valuable guides to inquiry and, in fact, makes the inquiry a meaningful undertaking [32]. In here, the researcher's knowledge of the recent literature is what leads him or her to the realization that research is needed in an area that is understudied. It is the researcher's knowledge base that leads to specific ideas about how the inquiry needs to proceed to produce useful knowledge [31]. This assumption indicates that the meanings that the researcher arrives at in interpretive research are a blend of the meanings articulated by both participant and researcher within the focus of the study. This means that the act of interpretation is always bounded by the separate and intersecting horizons of human beings: both researcher and participant [33]. The qualitative approach was suitable since it allows describing experiences of the participants through formal or informal interviews [34] and it facilitates the researchers to link to the phenomena under investigation. This approach needs vigilant exploration because it depends on the knowledge and experience of the participants. The principle of proximal similarity [35] specifies that no two settings are exactly equivalent when multiple

factors are taken into consideration during a study. Therefore, it is required to consider individual differences regarding the study design and participants, despite the desire to be able to replicate and other homogeneous factors. In this vein, the study considered individual differences of the participants with regard to the participant's attributes like years of experience and education.

3.1 Sample

According to Interpretive Phenomenological Analysis (IPA) [36], sampling is purposive; six to eight is recommended as an appropriate number of participants [37] and opportunism and convenience were contributing factors in choosing the purposive sample for this study [38]. As Creswell & Creswell [39] insisted it is required to get participants' engagement and willingness to share their lived experiences on the issue of carpenter skills shortage in Sri Lanka. Furniture industry is mostly established in the city of Moratuwa in Sri Lanka. There are more than 100 small and medium enterprises that are registered in the Divisional Secretarial Office in Moratuwa as furniture manufacturing firms and yet there are many caring out small scale firms without registering. A specialized application of the interpretive phenomenology is that of critical hermeneutics [40]. The critical hermeneutic inquiry is to make voices of marginalized individuals and groups heard. As these groups gain insight and voice, they may plan social and political actions that can help remedy some of the historical and environmental conditions that affect their well-being [31]. The qualitative study involved 12 (male) participants, representing individual furniture manufacturing firms' owners, carpenters who are currently employing and the retired or the resigned carpenters within the city of Moratuwa. Whilst some diversity was inherent in the participants in terms of their nature and timing of engagement, it was recognized that a great deal of variability would exist in the phenomenological level. These participants were considered suitable because they are useful in in describing lived experiences and expressing their perceptions of the skills shortage and its consequences for the furniture manufacturing industry. These participants have varying years of experience and education levels (Table 1). Participation in this study was voluntary.

Table 1. Participant information

Characteristic	Frequency of Category		
	Furniture manufacturing firm owners	Carpenters	Resigned/retired Carpenters
Education Level:			
Bachelor's degree	2		
Master's degree	2		
Advanced level		1	3
Ordinary level		2	1
Below grade 8		1	
Age:			
Below 30	1	1	1
30 – 40 Years	1		
40 – 50 Years	1	1	
50 – 60 Years	1	1	
Above 60			1
Experience:			
Less than 1 year		1	
1 – 5 years			3
5 – 10 years	2	1	
More than 10 years	2	2	1
Timber company owner		No. of Employees engage in company	
Timber company owner 1		35	
Timber company owner 2		41	
Timber company owner 3		22	
Timber company owner 4		20	
Timber employee		Retention on the job	
Timber employee 1		No	
Timber employee 2		No	
Timber employee 3		No	
Timber employee 4		Yes	
Resigned worker		Current Occupation	
Resigned worker 1		Taxi driver	
Resigned worker 2		Not engage in work	
Resigned worker 3		Office assistant	
Resigned worker 4		Taxi driver	

The process of data collection was performed through open-ended semi-structured interviews. Conducting interview is the vital method to acquire useful information on carpenter skills shortage because it facilitates to explore in-depth understanding of the issue on the lens of the participants. As Cope [41] opined, semi-structured interviews should loosely structure to gain a first-person description of some specified domain of experience, where the participant largely sets the course of the dialogue. The semi-structured interview was entirely reliant on the participants' availability, the time constraints with respect to their task requirements and their geographical locations. Questions were designed under three categories as semi-structured questions in terms of gathering information as an

interview form, which is conducted under each category (timber firm owners, current employees and retired, resigned employees). The use of semi-structured interviews permitted to develop emergent themes without disturbing to the data collection process. While conducting interviews, minor adjustments were included to gather more clarifications and lived experiences. The questions were constructed (Annexure 1) to gather experiences and perceptions of skills shortage of carpenters in Sri Lanka and authors specifically attended to mitigate against interviewer bias [42]. The interviews lasted an average of 40 minutes and all the interviews were audio-recorded. After 12 interviews with participants from three categories were conducted, no new information was being

generated so the data collection process was discontinued [43]. Taking cues from the literature review, the established concepts of skills shortage in furniture manufacturing were used as the facilitator for developing the study questions with emphasis on carpenters.

Acknowledging the principles of IPA, the study started with a detailed, nuanced analysis of one case and then moving to the careful analysis of subsequent cases. The recorded interviews were transcribed verbatim to provide the data for the analysis. The process of analysis initiated with reading and re-reading of the transcribed interview to gain an appreciation of the whole story (familiarization). Then, a free textual analysis was performed to highlight the potential significant points (sense making). The highlighted points were then grouped to form common clusters of meaning (categorization). The holistic reflective analysis of the clusters of meaning led to the emergence of themes that appeared to be salient to a particular interview (intra-case themes). After completing holistic reflective analysis of all interviewees, a meta-level analysis across the interviewees was performed (inter-case themes). The eight master-sub theme lists were compared to identify and explain similarities and differences, thereby creating links between cases. Areas of shared experiences between participants were identified, and subsequently coded to allow overlapping concepts to be highlighted. This involved to aggregate sub-themes from across the cases. To improve the external validity of the study, the connections of participant's characteristics being studied [35]. This includes the involvement of different groups of participants at different times and identified that different participants shared similar perceptions regarding skilled labour shortage [43]. Two authors independently coded the interview themes, and afterwards shared and agreed the coding which further improved the inter-reader agreement and reliability [44]. To enable the reader to develop a detailed appreciation of the participants' experiences and to allow their voices to be heard, the analytical findings include direct quotations from the empirical material generated from the interviews.

4. RESULTS AND DISCUSSION

The outcomes of the analytical process are developed as emergent themes presented in the following sections. The emergent themes based on the cohesion of participant's feedbacks were grouped into key themes and sub-themes [45] to

reflect the perceptions and understanding of the participants involved in the interviews. The inclusions of some quotes are demonstrated in following sections to reflect the wider data set and analysis undertaken.

First, the study explored the immediate impact and long-term impact of skilled carpenters' shortage on furniture manufacturing industry. In here, 3 firm owners unequivocally agreed that they are experiencing a giant risk because of hard to find skilled and dedicated workers. Poor quality work was rated as the major effect of skilled labour shortage. In line with that, the substantial financial costs were clearly expressed here. Specifically, the financial cost is linked to feelings of embarrassed with dropping future orders and associated stress that this can create. As they opined, the industry is in catastrophe, none of the relevant authority pay their attention on shortage of carpenters.

"Yes, it's very difficult to find skilled carpenters now than then because earlier lot of people were willing to work in this sector even though they did not have the proper skills. But today instead of looking for proper skills it is hard even to find a person who is willing to work in this industry" (Firm owner 1).

"My four carpenters resigned recently... I lost one of my loyal customers because I couldn't complete his order at promised time. I feel so afraid how I could sustain this business; this is our family business and I don't know any other things to do" (Firm owner 4).

"Youth waste their time and effort to work as three-wheel drivers. Though we have demands, we are losing them. Our customers are now starting to import furniture from Malaysia. No one cares about collapsing this industry" (Firm owner 3).

Acknowledging the owners' view, a carpenter who is presently getting close to his pension age mentioned that he has seen how his manager was struggling to find a carpenter when there is a vacancy arises. If manager cannot fill the vacancy immediately, he is getting big trouble with completing the order. A clear message from the participants is that uncontrollable carpenter shortage has hit the furniture manufacturing industry today and there is no idea about how difficult it would be to sustain this industry. The

participants stress the importance of solving this issue, however an interesting finding is that participants, specifically firm owners, do not seem to feel that they should personally involve into overcome the skilled carpenter issue. The next sections discussed the emergent themes identified from the participants.

4.1 Unsustainable Income

Previous studies suggested that labour shortage is employers struggling to fill labour vacancies due to the insufficient labour that is being applying for the jobs [46]. Consistent with such findings that majority of the respondents defined that skilled labour shortage is visible mainly with the economic aspects of the human beings where the amount of salary they receive, plays a vital role [15]. The issue of unsustainable income of carpenters was alluded to by 7 participants as fundamental reasons why many carpenters leave the timber firms. The participants overwhelmingly indicated that the short-term high levels of pay could be earned, but inconsistent earning capacity is amongst the reasons leads to frequently move between timber firms or find new ways of making money with more consistent and sustainable employment opportunities like taxi drivers.

“... lack of employee involvement can be seen in some places when they are not being paid with a good salary, people would not come to work or even if they come to work, they would not give their full potential” (Carpenter 2)

“.. we're daily paid workers and not permanent employees so we cannot guarantee for how long that we can work in the same job. If there are no orders, then we will have no work. No work means no pay. And the other way is that we deal with dangerous equipment's and machines, so our safety is at a treat” (Carpenter 3)

Interestedly, firm owner 2 specifically highlighted that his workers provide their full commitment towards their job because he ensures to offer necessary facilitates. As he mentioned, *I do not struggle yet to recruit and retain skilled workers. “I think salary is one thing because I offer them a good salary. And they have families to look after so they must work for that. I also give free meals, boarding facilities, medical facilities and rewards for their better work and bonus twice a year according to each person's performance. I also*

ensure that they have a better work environment all the time”.

All firm owners opined that majority of the carpenters are presently getting close to their pension age and issue of recruitment and retention of young workers becomes even more dreadful. Prior studies insisted that projected earning capacity strongly associates with a youth employee's career aspirations [47]. Carter et al. [48] opined that it is necessary to have adequate pipeline of new recruitments that will sustain any sector in the economy. Thus, it is jeopardize to the potential to recruit the most suitable candidates into this sector if relevant authorities are not redressing the issues around unsustainable income of carpenters.

4.2 Lack of Social Prestige

The participants agreed that carpenters are often ill-treated by society; it is not only the pay they get but other factors like social and psychological factors are often caused to skilled labour shortage in furniture manufacturing industry. The perception on low social prestige about carpenters was shared by nine of the participants interviewed. They also revealed that risky working practices are not recognized and unfortunately none of the insurance scheme was initiated to the carpenters. The physical damages (working with heavy metal equipment, dust and chemical) can have on a worker's health [49] and employers are not concerning on the safety practices in the timber firms. Employees who are currently engaged and resigned agreed that the owners are much worrying to make profit, without much concerning or caring about the carpenter's health or wellbeing.

“Yes, the work we do is somewhat hard, risky, and not a permanent lifetime job at all and the recognition from the society is less etc.... most people think that this is not a secured job to be done. So, due to these circumstances people do not much involve working in this industry” (Carpenter 1)

“There were lots of heavy works to do. I was worked in coloring section of furniture. In there I had to rub the furniture items with sandpapers and then must spray the relevant color to the item. But not too long I became sick, due to the dust that comes when rubbing the furniture. I asked safety kits from the manager, but he did not consider on that very much. Since my illness

became serious doctors instructed me to avoid interacting with dust therefore, I had to resign” (Resigned Carpenter 3)

I once had two employees of age twenties, who had lot of capacity, strength and more commitment to work. But they only worked for a year, and they resigned and now they are taxi drivers (Firm owner 4)

Nine participants unequivocally agreed that carpenters have to earn all through their career in order to look after themselves as they do not entitle to pension scheme or any other social security funds. Anxiety about pensions creates carpenters work as much as they can without taking time-off. This could lead occurring physical damages and impact their ability to work up to a certain age. This will lead carpenters move to other jobs with prospective for higher earnings. In here, self-employed nature of carpenters becomes the vital factor to the incessant changing job between firms or other sector. Four participants commented that no one willing to help them in times of financial hardship. As they revealed people believed that there is lower guarantee of repayment ability of carpenters; which sort of reinforces the concept that carpenters are not valued or invest in their self-employed.

Interestingly, one of the firm owners highlighted an unexpected view, where some employees not even want to tell their parents that they work as a carpenter. This shows that educated youth do not like to enter in this career because of their parents or society's pressure.

“I have employees coming from all around Sri Lanka. And I have provided them with boarding facilities. And I know that there are one or two young employees who even haven't visited to their villages for more than a year. They only send the salaries to home, and they have lied to their parents saying that they are working in some other office and not as a carpenter” (Firm owner 3)

This indication was further acknowledged by timber employee, mentioning that;

“I'm 26 and yes, I have strength to work but I don't wish to work in this field much longer. People believe that I am less educated that is why I ended-up as a carpenter. Most of my friends have gone abroad to work in cafes or other work or they are working in tea

factories or other kind of factories which is out of Colombo” (Carpenter 3)

These indications specifically showing the lack of youth engagement towards this occupation; which they tend to think that people with less or with no education qualification would only come to work in this career, and further exacerbates skilled labour shortage for carpenters in Sri Lanka.

4.3 Infertile Apprenticeship Programmes

The firm owners eagerly emphasized the vital requirement of having proper training programmes for carpenters. They commented that some apprentices have a lack of interest in the attaining of wood working skill and show the wrong attitude to learn key skills, commit and engage with the job. Firm owners, while referring to the nature of the work, the high proportion of time spent to offer hands-on training and financial restrictions, further indicated the no adequate plans put in place to implement proper training programmes to new-comers. Though they identify the essential of training is an integral part for the employees to be more skillful and to evade wastages, financial capacities restrain them to conduct such training session within their firms. As such, they provided unstructured verbal instructions and asked employees to observe senior employees' work and learn. Unfortunately, they considered those actions would get the trainings.

In other aspect, carpenter perceived that the shortfall of available proper training tend to obstruct their ability to earn, they are *not going to be interested and not going to be good at work.*

“I know how difficult to get know the work in there at first hand. Because only with the simple instructions they gave, I could not properly do the work and as a result the quality of the items got reduced. That could not happen if I was given a proper training” (Resigned Carpenter 4)

Three firm owners signposted that the available training programmes in government training institutions was too standardised and fail to take into account the realities in the industry. Two of the participants indicated that the apprentice demands high compensation though they do not have first-hand experience in the industry. As Spence [15] opined, there are overconfident low-ability workers believe their marginal cost of

acquiring signal (education or training) should cover at short period of time. This could lead on attrition experienced amongst apprentice carpenters and they get frustration of being unable to learn key skills. As Cappelli [50] opined, the work ethic and attitudes of the apprentices could potentially influence the level of training and that would be adversely affect the plans put in place to increase the employment of experienced carpenters.

Also, there are indications that the industry would require to invent a clearer roadmap to visible future career pathways. In the present state, carpenter is recognized as a lower level and narrow scope in terms of working environment and associated qualifications. Young talented employees could not see the formal career path that would inspire them to make informed decisions.

"In my 30 years of experience, I have seen many youngsters come and engage in the work but however they could no longer

survive. Very often they asked from me; where we stand nextvery rarely I have seen that they are settling in this field" (Resigned Carpenter 2)

The industry's existing practices regarding underinvest in the training programme will further worsen the skill shortage issue. Eventhough the concept of training while observing and working can overcome some of the restrictions placed on training; success of this approach depends on the senior employees' willingness to teach and the apprentices' ability of observe. To attract young recruitments, there should be a review and revise of the standardised apprenticeship programmes currently in place for the carpenters that would inspire youngest, specifically school leavers, to see a future in furniture manufacturing industry.

In a nutshell, the remarks of the interviews conducted with the timber firm owners, timber firm employees and the retired/resigned workers can be illustrated in Fig. 1.

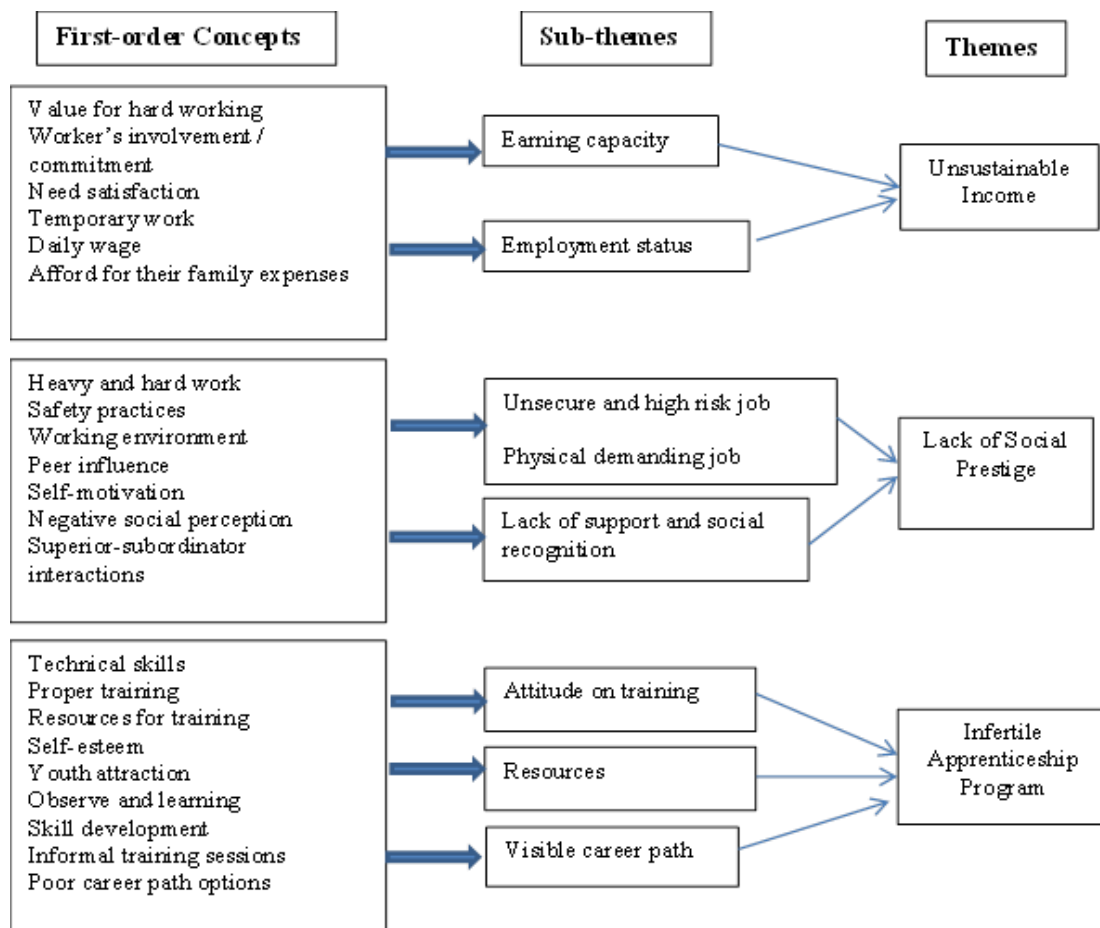


Fig. 1. Data structure for skilled shortage

5. CONCLUSION

Sri Lanka is experiencing the construction boom in apartment projects and skills shortage within the furniture manufacturing sector places more pressure on the construction companies to complete their targets. Some construction companies are looking towards moving to import luxury furniture items from countries like Vietnam, Malaysia at a larger cost to complete the interior finishing of the apartment [11]. The findings extend the viewpoints in labour market signaling theory [15] that a firm's ability to fill job openings does not exclusively depend upon monetary issues, rather that job characteristics that foster individual workplace satisfaction provide additional value. This study which focuses on the lived experience of participants with carpenter skills including owners of furniture manufacturing firms in Sri Lanka identified that unsustainable earning capacity often lead to experience carpenters leaving the work and search of a job having a reliable income source. The existing payment term is calculated based on daily-wage rate and employees receive weekly or monthly remuneration. Due to the temporary nature of the orders or contracts received, the firms' owners are reluctant to recruit a permanent staff. The terms of contract might help to resolve the unsustainable income across the sector. Moreover, furniture manufacturing firms are required to convey long-term financial planning together with creative working practices to provide consistent income sources to carpenters.

The findings revealed that the lack of social prestige towards this career plays a vital role in determining the employee engagement, especially with the youth. The literature highlighted that the satisfaction of a job may arise more from the prestige which attached, than any other job characteristics [25]. The temporary nature of this work has become a major reason to gain a negative perception about this career by the society. It is evident that the less social value this career has is mainly depends on the judgments and thoughts of the wider community, where they think that people with no or less education are working and then the job is not permanent and no retirement benefits at all. Issues about high risky job and lack of job security, insurance coverage and social security funds are key aspects that need to be restored within the sector. Resolving the issues require some policies to increase the accountability as a means of commanding

respect from the society towards the carpenters. A sense of engagement raise within the carpenter and a shared persistence by ensuring that those legitimately employed in this sector are given a voice bring significant changes. Otherwise, the future of this profession would be at a greater treat where none would like to join to a job which has less or no recognition.

The skill mismatches and skill deficiencies of the employees often required proper training. The inadequacy of the trained personal is the most significant factor for skill shortage [19]. Unfortunately, the firm owners do not see the significance of undertaking a prescribed training to develop a qualified carpenter because progression is informal through work experience. Good training sessions and systems, training methods and resources, upgrading the existing knowledge would definitely help the workers to perform well and to be specialized in their careers. However, lack of fund availability within firms becomes a major constrain to implement proper training programs. Though the government training institutions implement apprenticeship programmes, the furniture manufacturing sector still has the highest proportion of labour turnover rates which thus impacts the success of apprenticeship programmes. This implies the requirement of meaningful collaboration between furniture manufacturing firms and training institutions to develop curriculum and pre-apprenticeship programmes in terms to cherish the right entrant. If not there will be continuing difficulty in retaining the talents, knowledge and expertise of the carpenters.

In the case of carpenters' active engagement, employer brand theory provides a sound explanation about firm's attractiveness as good employer and why potential applicants should choose a particular employer [51]. Employer branding strategy is mainly focusing on how the company is seen in the perspective of current and potential employees within the aim of "winning the war on talent" [52]. It is evident that carpenters have no loyalty to their employers; as they often have the propensity to leave an employer when offered a better wage by another firm. The rationale for the low retention related to what carpenters perceive as a limited or short career lifespan. The ability to invent a clearer roadmap to visible future career pathways is an essential part of furniture manufacturing sector. A carpenter could be employed in a series of different occupations as furniture designer,

interior designer and furniture layout foreman, each involving a range of tasks. It is imperative that construction firms and other agencies could train carpenters to enable the finishing of apartments' interior designs and meet the needs of future apartment construction projects. This could potentially enhance the Sri Lankan government drive towards achieving its aspiring apartment targets.

Furniture manufacturing industry has a potential to generate attractive export earnings however received less attention on its skilled labour shortage issues. The present study fills existing research gaps to a greater extent by exploring the skills shortage of carpenters in Sri Lankan furniture manufacturing industry through the lens of participants (furniture manufacturing firm owners, carpenters and retired carpenters) that are involved. These participants were considered suitable because they are useful in describing lived experiences and expressing their perceptions of the skills shortage and its consequences for the furniture manufacturing industry. Though this attempt is seen as a short-term answer to a long-term problem, the impact of this skilled labour shortage is normally sensed in terms of costs, productivity and project (apartment) overall performance. In order to discontinue the skilled shortage boom-bust cycle experienced within the furniture manufacturing industry, it is commanding that the furniture manufacturing firm owners, carpenters, government and other relevant authorities should look beyond short-term fixes. The study concludes with some limitations that may be worth exploring in future research. The study mainly focused on the interpretations of three main participants involved in the industry. A wider and more diverse group of industry participants from different parts such as apprenticeship programs/institutes, social communities, financial institutions and government authorities would have made the study more representative.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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ANNEXURE 1:

Interview protocols

Furniture manufacturing firm owners

- Problem of recruiting proper skilled workforce to the company
- Consequences faced by hiring unskilled or low skilled workers
- Workers commitments to offer their best
- What drive them to their motivation or to give their best effort in workplace?
- Provide training for the workers, how will a proper training affect your workers?
- How your workers think of this job in a social aspect?
- In which age gaps do you recruit workers mostly to your firm?
- Explain whether you found it hard to recruit youth as workers to your firms?

Carpenters currently employ

- Find it difficult to engage in work in this industry
- What factors drive you to give your best effort at work?
- Training that was offered to you by your company
- Having a proper training is essential when working in this industry
- What would you think about this career in a social aspect?
- Your opinion about new youth entering this career field

Retired/ resigned carpenters

- For how long did you engaged in work under this industry? At which age did you get retired/ resigned from working?
- What difficulties did you face while working in this industry?
- Completely focused on and try to give your best effort at work each day
- What factors did drive you to give your best effort at work?
- Describe the training that was offered to you by your company?
- What would you think about this career in a social aspect?
- Describe your opinion about new youth entering this career field?

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