International Labour Organization

Upgrading informal apprenticeships in Jordan's car garages

A vehicle for job quality improvements and productivity gains in micro and small businesses

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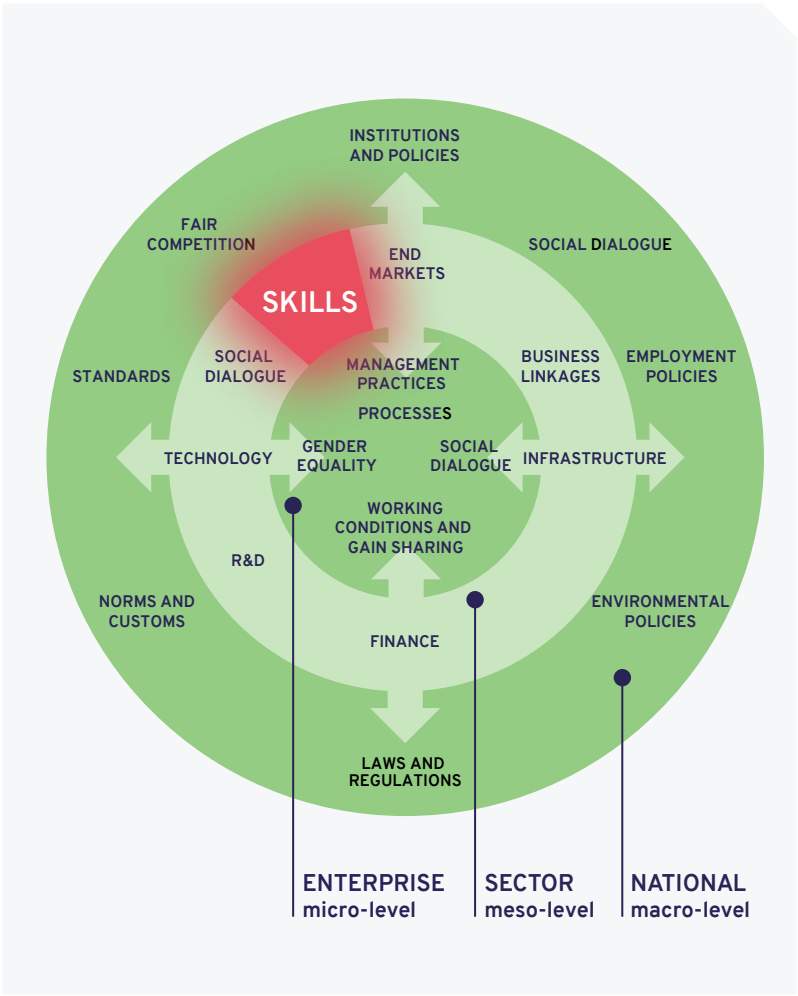
Introduction

In March 2021, the International Labour Organization (ILO) Governing Body endorsed the Productivity Ecosystem for Decent Work (hereafter referred to as "Productivity Ecosystem"). The Productivity Ecosystem is an approach that works at the firm, sector and policy level to systematically identify key productivity bottlenecks faced by micro, small and medium enterprises (MSMEs) and address them in an integrated and sustainable manner.[1] The approach has been developed based on the ILO's previous work and programmes to improve productivity and decent work for MSMEs.

This case study is part of a broader series that seeks to shed light on key drivers of inclusive productivity growth and to showcase how the ILO has helped strengthen those drivers. Concrete examples are presented of how the ILO facilitated or promoted change that led to positive impact on productivity and decent work, especially for MSMEs. The case study series zooms in on skills development as a key driver for a well-functioning productivity ecosystems for decent work. Specifically, the below case study of an ILO-led upgraded informal apprenticeship programme in Jordan's car servicing and maintenance sector finds that such apprenticeship schemes impact the skills of young apprentices, thereby improving their employability and the productivity of participating MSMEs.



1 The ILO defines MSMEs as enterprises with fewer than 250 employees. In many countries, more than 90% of all enterprises can be classed as SMEs, and a large share of those can be classed as micro firms, with fewer than ten employees. For more information, see ILO (2019), The Power of Small: Unlocking the Potential of SMEs. https://www.ilo.org/infostories/en-GB/Stories/Employment/SMEs#intro

1. The economic situation in Jordan

The service sector plays a central role in Jordan's economy and is primarily made up of micro, small and medium enterprises (MSMEs). According to the OECD,[2] more than half of employment in Jordan's economy and up to 80 percent of employment in sectors such as professional services, real estate and wholesale can be attributed to enterprises that employ less than 20 employees. Meanwhile, informal enterprises account for more than half of overall employment.[3]

While being a driving force of Jordan's economy, MSMEs in the service sector, especially those operating in the informal economy, struggle with low productivity and decent work deficits. 54 percent of workers engaged in service sector firms that employ fewer than 4 people are unpaid workers (often including family members) compared to 8 percent unpaid workers for companies with 5 to 10 workers, and less than 1 percent unpaid labour for companies with more than 20 workers.[4] Skills development and informal apprenticeship programmes have proven to be one important avenue to addressing these challenges by improving employment prospects and job quality especially for youth.

Just like many countries, Jordan's economy has been severely affected by the COVID-19 pandemic, contracting by 1.6 percent in 2020.[5] Among businesses, MSMEs have been hit the hardest.[6] The pandemic also impacted vulnerable populations disproportionately,[7] notably undermining the employment and livelihood opportunities of youth.[8]

2. Upgrading informal apprenticeships in Jordan

One specific, yet exemplary sub-sector of Jordan's service sector are car repair and maintenance shops, also termed "garages". Garages tend to be very small economic units in Jordan: they are often made up of the shop owner, a master craftsperson - who in most cases owns the shop himself, and a few other skilled workers. In an effort to train potential car repair workers, garages provide informal apprenticeship opportunities to young people who often come from large families with low income.

Between August 2013 and March 2014, the ILO piloted a project together with the International Youth Foundation (IYF) to upgrade informal apprenticeships[9] in 31 garages with a view to improving their capacity to ease the school-to-work transition by providing young people with employability skills. The pilot was part of a larger SIDA-funded project on "Tripartite Action for Youth Employment in Jordan" implemented within the framework of the ILO Decent Work Country Programme.

Despite the existence of formal apprenticeship programmes, informal apprenticeships continue to be the main avenue for skills acquisition in most informal economies, including Jordan. Yet, informal apprenticeships may not always be as effective as expected to transfer knowledge and skills. An initial rapid assessment on informal apprenticeship practices was carried out in 150 car garages and 32 printing workshops in three governorates in Jordan (Amman, Zarqa and Irbid) to identify specific areas for improvements and inform the design of the ILO pilot project. It concluded that informal apprenticeships did not produce the intended outcomes and that they could be upgraded to meet the needs of young apprentices in terms of skills transfer and employability.

2 OECD (2019), SME Policy Effectiveness in Jordan. User Guide 1: Reinforcing SME policy coordination and public-private dialogue, OECD Publishing, Paris.
3 ILO, Jordan endorses a national framework for regulating the informal economy, April 2015.
4 Ibid.
5 See the World Bank in Jordan, last updated in June 2021: https://www.worldbank.org/en/country/jordan/overview#1
6 ILO (2021), Policy Brief 2021. Impact of COVID-19 on Enterprises in Jordan: One year into the pandemic.
7 ILO (2020), Facing Double Crises. Rapid Assessment of the Impact of COVID-19 on Vulnerable Workers in Jordan.
8 According to the World Bank, the overall unemployment rate, which averaged at about 15% during the past two decades, reached an all-time high of 25% in the first quarter of 2021. The youth unemployment rate was twice as high, reaching an unprecedented 50%.
9 The ILO defines informal apprenticeships as a system where a young learner (the apprentice) acquires the skills for a specific trade in micro or small enterprises, learning and working side-by-side with an experienced craftsperson, based on an informal training agreement embedded in local norms and traditions. For more information, see Upgrading informal apprenticeship - A resource guide for Africa, ILO, 2012.

Box 1. Key findings from the initial rapid assessment

1. Most of the surveyed workshops (74 percent) were only able to take one apprentice in because of the "lack of business".
2. Recruitment methods were mostly informal with most apprentices choosing their master craftsperson among close relatives.
3. The training content was discussed in only 23 percent of negotiations for work agreement.
4. While 45 percent of the master craftspersons and 48 percent of apprentices reported that they agreed on an apprenticeship contract, 92 percent of apprentices indicated that the contract was not written.
5. Occupational safety and health (OSH) specialists reported that the apprentices were exposed to a high level of on-the-job risk, although no record was available of accidents.
6. No assessment nor certification systems were put in place to grant apprentices occupational licenses that would ensure the recognition of their skills by other employers and training institutions.

The pilot initiative for upgrading informal apprenticeships therefore aimed at: (i) developing apprenticeship contents and processes; (ii) matching apprentices with employers for on-the-job training; (iii) improving occupational health and safety conditions at the workplace; (iv) improving organization and workplace management; and (v) organising assessments for occupational licenses of the trainees.

The programme included the following components:

1. Training of the apprentices in basic skills including technical English language skills, life skills (personal management and self-development) covered by the Passport to Success, occupational safety and health and basic computer skills, as summarised in the table below.

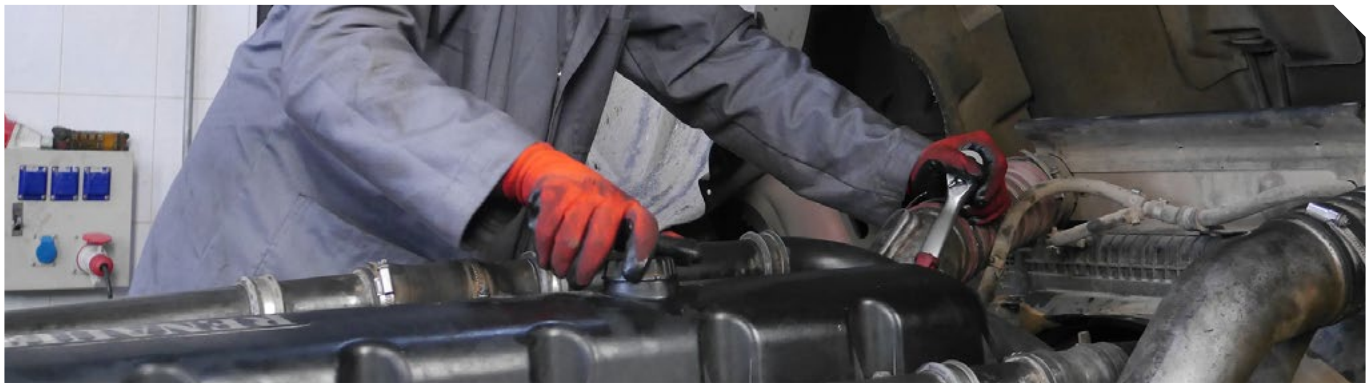
Subject	Purpose	Light Vehicle Repair	Quick services for trucks/buses
Technical English language skills	Identify related terms for auto repair and service of trucks and buses, based on a glossary	30 training hours	15 training hours
The IYF Passport To Success (PTS)	Develop personal competencies, problem solving, behavioural skills, and conflict management skills	48 training hours	48 training hours
Basic OSH awareness	Identify hazards and learn how to protect one-self	24 training hours	10 training hours
Basic computer skills	Get into source information and organize knowledge	30 training hours	15 training hours
Technical skills		300 training hours (2/3 practical)	150 training hours (2/3 practical)

2. Training of the apprentices in the technical skills needed for the job including light vehicles repair and quick service for trucks and buses.
3. Training in basic and technical skills was complemented with on-the-job training where apprentices were directly immersed in car workshops and garages to understand the practical applications of the previously acquired skills. The programme placed mentoring and the tracking of skills acquisition at its core. Three mentors were in charge of following up with the apprentices through weekly field visits to workplaces. Score cards developed on the basis of the Arab Standards for Classification of Occupations (ASCO 2008) were used in particular to track skills acquisition.
4. Capacity-building for MSMEs in occupational safety and health (OSH).
5. Training on workplace management and work improvements, which covered how to share technical information with clients and correct billing methods.
6. Training on modern car technologies including two courses on hybrid cars and vehicle electronic systems.

Programme sustainability since 2014

While the pilot project concluded in March 2014, a private TVET Academy based in Amman with whom the ILO partnered during the pilot phase has since replicated the upgraded informal apprenticeship model with funding from other donors.

The takeover by a private TVET service provider and the interest the model garnered from other donors and organizations can be indicative of the programme's success. With this in mind, the ILO decided in 2021, seven years after the completion of the pilot project, to assess the continued, medium-term effects of the upgraded informal apprenticeships, not only on job quality but also on MSME productivity. Results from the pilot project (Section A) and evidence collected ex-post from car garages that took part in the subsequent iterations of the project (section B) are presented in this case study.



3. Revisiting the car garages 5 years later: methodology and context

This case study builds on the results of the pilot project, which are summarised in the ILO Policy Brief on Upgrading Informal Apprenticeships (2015)[10] and on data collected from MSMEs who participated in the subsequent iteration of the programme by the private TVET academy.[11] It should be stressed that these MSMEs did not participate in the pilot project. Many MSMEs that benefited from the pilot project were found to be closed and/or out of business, in part as a result of the COVID-19 pandemic. However, the upgraded informal apprenticeship programme they took part in replicated most, if not all, aspects of the pilot project, as outlined under the previous section.[12]

The aim is to identify how upgraded informal apprenticeships affect working conditions and productivity in the medium-term (i.e., a span of 5-7 years following the implementation of the intervention). It builds on the assumption that upgrading informal apprenticeships – by enhancing the basic competencies and technical skills of trainees, by bolstering on-the-job training through intensive tracking, coaching and mentoring, and by offering MSMEs business development support through technical training, OSH and workplace improvements – can be positively correlated with productivity improvements at the firm-level. This is especially the case if the upgraded informal apprenticeship increases the likelihood of the apprentices being hired by the MSME upon completion of the training programme as the skills and competencies then stay with the MSME.

The TVET Academy helped circulate a questionnaire among 30 car garages that benefited from the TVET organisation's intervention.[13] On average, the car garages comprised 4 workers, including the owner. As the project evaluation had already collected and analyzed extensive information on how the upgraded informal apprenticeships affected working conditions of the apprentices, the focus of the survey was to investigate if the MSMEs themselves had also benefited from implementing the upgraded informal apprenticeships.

Methodological note: Productivity gains are rarely measurable immediately but rather become visible over time and productivity in the service sector is challenging to measure. An increase in outputs (i.e., services delivered) in a given time period (e.g. one day) is not necessarily reflective of enterprise productivity but of customer demand on that day. Put differently, a car garage may service two vehicles in a given day even though capacity may have allowed for the servicing of more vehicles. As a result, this case study uses common proxy indicators for measuring productivity in the service sector: change in profits and turnover, change in number of customers, change in number of staff.

10 ILO, Policy Brief: Main Findings from a Pilot on Upgrading Informal Apprenticeships in Jordan, March 2015.

11 Two main caveats should be flagged: 1. Most MSMEs who took part in the first iteration of the programme (2013-2014) were found to be closed and/or out of business. One possible explanation for this is the COVID-19 pandemic which, according to existing evidence, has hit MSMEs the hardest in Jordan. 2. Interviewed MSMEs have all been hit by the COVID-19 pandemic. In many cases, this has translated into a slow-down of their business activity. The data collected on the impact of the informal apprenticeship programme on MSME productivity should thus be contextualized considering the economic downturn the car repair sector is experiencing.

12 Attributing the recent productivity gains MSMEs experienced to the upgraded informal apprenticeship programme may be challenging. These MSMEs may simultaneously benefit from other business support whose impacts on productivity are hard to isolate. This equally renders comparisons with MSMEs that benefited from the pilot project difficult. Yet, surveyed car garages themselves attributed the positive effects on productivity to the upgraded informal apprenticeship programme, adding validity to our results.

13 All respondents surveyed were male. Out of the 30 interviewees, 24 were car garage owners, 6 were managers and 1 was a worker. Most car garages were located in Amman, the capital city of Jordan, while 2 were located in Zarqa and 1 in Jerash. In addition, the TVET Academy facilitated the implementation of 6 phone interviews with car garages based in Amman to untangle the relationship between the upgraded informal apprenticeship programme and productivity gains.

4. Impact of upgraded informal apprenticeships on working conditions

30 car garages surveyed

4 workers per car garage on avarage

The evaluation of the pilot project, and whose results (see ILO Policy Brief) revealed positive effects of the upgraded informal apprenticeship programme on employment prospects and working conditions of the apprentices. Specifically, working condition improvements were achieved through improving employability of the apprentices, workplace relationships and occupational safety and health. New data collected through the survey in 2021 among garage owners and their workers corroborates the positive impact of the upgraded informal apprenticeship on employability in domestic and international markets.

Decent work through improved skills and employability

The upgraded informal apprenticeship programme aimed to improve the deficits to job quality in car garages that were found during the baseline assessment. First, the programme supported the development of apprenticeship contents and processes, which were previously lacking. The programme also achieved its main objective of linking apprentices with employers for on-the-job training after having ensured that the former acquired the necessary theoretical and practical skills. Finally, mentors – automotive instructors working at the TVET Academy – conducted field visits in the repair shops to track the apprentices' acquisition of technical skills through different means, including skill score cards and logbooks.

Previous data from the pilot project reveals that apprentices managed to acquire advanced skills in 16 areas of light vehicle repairing. Mentors notably attributed the improvements in the skills of the apprentices to the role of the master craftspersons and their increased presence in supervising the work of the trainees. While before the programme master craftspersons would only get directly involved in the training for the most difficult tasks, leaving the apprentice under the guidance of a skilled worker, the upgraded informal apprenticeship programme placed a stronger emphasis on on-the-job training and a more rigorous assessment of skills acquisition by master craftspersons.

The ILO Policy Brief highlights the following results from the pilot programme:[14]

- Of the 53 trainees who completed the basic training and on-the-job training components, 47 were granted an occupational license by the Centre for Accreditation and Quality Assurance testifying their skills level. Such licenses can open the door to further occupational mobility and provide MSMEs with a standardized tool for skills assessment.
- 49 apprentices (92 percent) obtained a job either in the repair shop where they were trained or in other repair shops.

14 ILO, Policy Brief: Main Findings from a Pilot on Upgrading Informal Apprenticeships in Jordan, March 2015.

- A reduction in the training-to-employment transition period was noted, with apprentices being recruited after less than a year of training, as opposed to five years in the case of standard informal apprenticeships.
- Evidence from the pilot programme shows that 90 percent of the apprentices who landed a job after the programme (44 out of 49) earned above the minimum wage of JOD 190 (USD 268), 69 percent had a salary that ranged between JOD 200 and 250 (USD 283 and 353) and 20 percent had a salary that exceeded JOD 250 (USD 353).

Recent surveys and interviews with car garages also lead to conclude that the skills acquired have enabled trainees to become more employable on both domestic and international labour markets, as well as both for employment and self-employment opportunities. Most surveyed car garage owners indicated that they had hired apprentices upon completion of the upgraded informal apprenticeship programme, as they were confident about their skills level. They highlighted this as one of the key benefits of the programme.

In addition, some MSME owners reported that the upgraded informal apprenticeship programme acted as a springboard for labour migration and business creation. Two shop owners indicated that apprentices worked for a short period of time in the garage where they completed the apprenticeship and then pursued job opportunities in car repair in the Gulf region. Other MSME owners explained that the apprenticeship programme paved the way for trainees to acquire relevant skills and subsequently launch their own business venture.

Decent work through improved workplace relationships

Mentors' field visit records from the pilot project indicate that the relationship between the employer and the apprentice can differ depending on whether supervision is undertaken by the shop owner or by the master craftsperson employed by him or her. The mentors reported that the apprentices were able to gain more out of the informal apprenticeship programme when they worked more closely with their employer, notably by working under the supervision of the master craftsperson.

Decent work through improved occupational safety and health

The apprenticeship programme also improved certain elements of occupational safety and health (OSH). An OSH expert conducted field visits to participating garages where he assessed the work environment, identified occupational hazards and verified the availability of basic health and safety equipment. Owners and workers were also trained on the fundamentals of workplace health and safety. They were made aware of the mechanical, electrical and chemical risks related to their work and of preventive methods to reduce work-related accidents, such as the use of personal protective equipment. According to data gathered from the pilot programme, improvements were recorded at a rate of 91 percent for the availability of informative posters across garages but remained just under 20 percent for daily cleaning and organizing of the workplace and the health facilities. The provision and appropriate use of personal and protective equipment remained under 10 percent.

5. Impacts of upgraded informal apprenticeships on medium-term MSME productivity

The impact of the upgraded informal apprenticeships on the productivity of the car garages was not measured in the immediate post-project evaluation in 2015 because productivity growth was not an explicit project objective. The 2021 survey therefore investigated whether and how upgraded informal apprenticeships may be linked to MSME productivity gains.

Positive indicators of enterprise growth

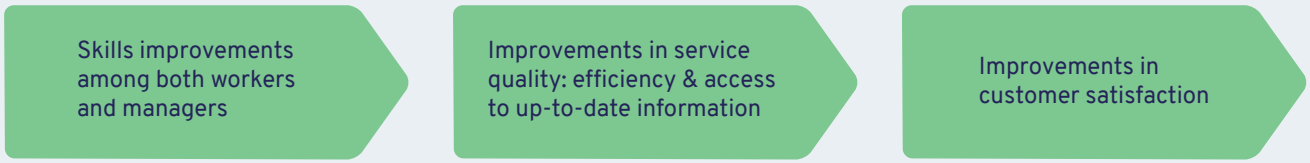
Overall, the car garages surveyed as part of the data collection for this case study (2021) unanimously agreed that the upgraded informal apprenticeship programme has led to general improvements in the workplace. By receiving theoretical and practical training in car repair, apprentices upgraded their skills and know-how, which played an important role in enterprise growth.

- **Hiring new workers:** Since participating in the training programme, 47 percent of the surveyed garages (14 out of 30) hired new workers, often between 1 and 3 workers. Many surveyed garages also reported that they had hired apprentices who had completed the programme, a recruitment decision that proved beneficial for the growth and productivity of their enterprise.
- **Winning new customers:** 87 percent of the surveyed garages (26 out of 30) reported winning new customers as a result of the programme. At least half of them (13), attributed the increase in the number of customers they have to the training the apprentices had received or, in other words, to upskill their workforce. Some indicated that they managed to expand their customer base thanks to the new techniques they were taught and equipment they were trained to use, such as for instance scan tools that can be used on modern vehicles. Finally, car garages explained during the phone interviews that the trainees allowed them to retain customers by bolstering the car garage's reputation. They helped contribute to the perception that the garages detain a solid expertise in car repairs and a skilled labour force. For instance, one shop owner explained: "*In my case, my customers are individual people, not companies, so when they are satisfied and happy with the service we provide, they will spread positive information on my garage through word of mouth.*"
- **Increasing turnover:** 90 percent or 27 out of the 30 car garages, claimed that they increased their turnover and profits as a result of the programme. Several explained that this was associated with increased sales, which was in turn linked to the skills improvements experienced by the workforce, and particularly by apprentices. However, most car garages stressed that the increased profits were recorded prior to the COVID-19 pandemic.

Unpacking the results chain between upgraded informal apprenticeships and productivity

This section reflects on the drivers of the productivity improvements that were observed in the car garages. The survey results point to the following chain of results: skills improvements in the work force (among both managers *and* workers through a combination of management skills training and the upgraded informal apprenticeships) in the context of the upgraded informal apprenticeship allowed for improvements of the quality of services delivered by the car garages. This, in turn, resulted in improved customer satisfaction, which is an important indicator of productivity in the service sector. This results chain is discussed in further detail below.

Figure 1 – The results chain



Skills improvements

The upgraded informal apprenticeship targeted both apprentices and MSMEs. MSME owners explained that the improvements observed in terms of efficiency, service quality and customer satisfaction – three key productivity drivers – were correlated with the upgraded skills of their labour force. Particularly, and as previously detailed, the programme provided apprentices with training in basic skills (e.g. technical English language skills, basic computer skills, life skills) as well as technical training in light vehicles repair and quick service for trucks and buses. 93 percent of the surveyed garages (28 out of 30) reported that the skills of their workforce increased, in most cases significantly, as a result of the programme. This, in turn, has generated productivity gains, notably reflected by the number of cars serviced per day and the quality of the service provided.

Meanwhile, the programme also contributed to upgrading the skills of car garage owners and/or master craftspersons, notably on modern car technologies and workplace management. Building their capacity proved useful to facilitate the transfer of more up-to-date knowledge and enhanced skills to the trainees, as explained below.

Service improvements

90 percent of the surveyed garages (27 out of 30) claimed that workers were able to improve the quality of the service provided as a result of the programme. Most MSME owners explained that the main problem they faced prior to the programme was that the information they had on the car repairs market was outdated, especially given the increased pervasiveness of modern car technologies, such as hybrid and vehicle electronic systems. As one argued, "*the car industry is rapidly changing, new cars based on new technologies are put on the market, so we need to adapt to these new changes*."

This led many to productivity losses as the car garages could no longer diagnose malfunctions effectively. Several MSMEs reported that, prior to the training received, they used to detect car mechanics issues on a more intuitive basis, as they did not have actual knowledge to rely on that mirrored the evolutions in the car repairs market. "*The car repair sector in Jordan requires us to have a real form of expertise. [...], but sometimes the techniques we have are flawed or incomplete.*"

However, since participating in the training, car garages have become much faster at identifying malfunctions and solving them. 28 out of 30 car garages surveyed (93 percent) reported that workers were able to service more cars per day as a result of the programme. They have also bolstered the quality of their services. As one MSME owner reports, "*thanks to the training, we now know what we're doing and how to detect car problems in a more precise and personalized way.*"

Shop owners also stressed that they largely benefited from the training they were given on electric and hybrid cars. One noted: *"the training allowed me to develop skills that I then transferred to the apprentices."* Such statements show that skills development programmes targeting workers are most effective when combined with capacity-building targeting the employers themselves. The combined training approach allows to maximise the knowledge transfer occurring in the workplace.

Customer satisfaction

There was also a consensus that customer satisfaction increased since participating in the programme. Many MSMEs explain this by the fact that the upgraded informal apprenticeship programme, thanks to the up-to-date information it delivered and its better structured content, enhanced the levels of trust between the customers and the car garages. It notably increased confidence levels vis-à-vis the apprentices themselves, as customers feel more comfortable having apprentices service their cars

as a result of the programme. One MSME owner stated: *"Customers want to know that their car is in good hands. With the apprenticeship programme, they saw that the workers who were in charge of repairing their cars were more knowledgeable and qualified. This reassured them."*

Increased customer satisfaction has in turn positively impacted the servicing capacity of car garages. *"Thanks to the training, our customers became more satisfied with our work. This undoubtedly has positive repercussions on the number of cars we repair."*

Conclusion

Overall, the upgraded informal apprenticeship programme has shown positive impacts on decent work outcomes and enterprise productivity growth. Results from the pilot programme indicated that upgraded informal apprenticeships enhanced the employability of young people and shortened their transition period from training to employment from five year to less than a year. Meanwhile, recent data collected from 30 car garage owners (30 surveys and 6 phone interviews) provides evidence that, several years after its completion, the programme has bolstered enterprise productivity, notably through an upskilling of the workforce, service quality gains, increased customer satisfaction and, ultimately, higher turnover and profits.

There are three key lessons that future skills development interventions can take away from this programme.

Lesson 1: Skills development constitutes an important driver for productivity and decent work, as illustrated by this case study. To be scalable and sustainable, skills development interventions need to be anchored at the sector level and embedded in a wider productivity ecosystem for decent work. In the case of the upgraded informal apprenticeship programme, a sectorial TVET institution – the TVET Academy located in Amman – replicated and generalized the programme after the pilot project ended. At the same time, it promoted innovation in the overall sector, such as by training car garage owners in hybrid and electronic vehicles, training whose positive effects have rippled down to apprentices and transversally to other MSMEs.

Lesson 2: It is possible to amplify the impacts of skills development programmes by combining them with business development and capacity-building for the enterprises themselves. In the present case study, the training MSME owners received in hybrid and electric cars had positive effects on both apprentices' skill levels and subsequently enterprise productivity as a whole. It updated the car mechanics knowledge owners had, which then had positive spillover effects on the quality of the skills acquired and utilized by apprentices in the workplace and beyond. In the future, it will be important to involve employers' associations and other business development services (BDS) providers in similar interventions to ensure skills development, business development, capacity-building and other areas (e.g. OSH training) are delivered in a complementary fashion for broader and more sustained outcomes.

Lessons 3: Improved customer satisfaction, increased turnover, hiring more staff take a while to manifest. Attempting to measure the impact of an intervention on MSME productivity a few years after it took place is instrumental to understanding (i) whether lasting impact has been achieved, and (ii) whether impact that was not immediately visible or measurable when the implementation of the intervention ended has unfolded over time.

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