ACADEMIA International Journal for Social Sciences
Volume 4, Issue 6, 2025 ISSN-L (Online): 3006-6638

The Social Dimension of Work: Age and Professional Experience as Determinants of Social Orientation in Agricultural Research Organizations

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Received: 14-10-2025 **Revised:** 12-11-2025 **Accepted:** 20-11-2025 **Published:** 29-11-2025

ABSTRACT

Work values have been extensively researched in the context of healthcare, corporate sector, and education. But limited research has been conducted on work values, particularly social orientation to work in knowledge producing organizations. Thus, the primary aim of this study is to investigate differences in social orientation to work based on various age and professional experience groups in the context of agricultural research organizations. The study opted quantitative and cross-sectional research design. Stratified random sample technique was used to select the study respondents. Data were collected by employing a structured questionnaire. Data were collected through online structured google forma dn in person visits to selected workers. Questionnaire had questions related social orientation to work and background variables. Descriptive statistics, Kruskal Walis test, and Bonferroni-adjusted post hoc test were applied to collected data to answer the research questions. The study findings reveal data knowledge workers in the bracket of 21-33 years and those in 1-10 years' experience had significantly higher level of social orientation to work. Older and more experienced knowledge workers had lower levels of social orientation to work. The study shows the social orientation to work gradually decreases with age and work experience. These finds have important theoretical and practical ramifications for organizations working on knowledge creation and innovation.

Keywords: *social orientation, knowledge workers, agricultural research organizations, age, professional experience*

INTRODUCTION

Social orientation to work is crucial element of a workers' commitment to job (Begum & Mujtaba, 2016; Brown-Crowder, 2017). Social orientation in simple words can be defined as social and relational dimensions of jobs. Work not only pay attention to financial awards and career promotions but also to social and collaborative aspects jobs offer (Fernandes et al., 2023; Grint & Nixon, 2025). Increasing number of workers like jobs where they can have meaningful relationships and can enrich their work experiences (Batool et al., 2023; Shahzad et al., 2023). Social orientation to work offer such an opportunity. This kind of work is very significant in organisations that are dedicated to developing something new from nothing, like research producing organisations (Shahzad et al., 2024; Shahzad et al., 2025). They are formal organization having strict rules and regulations, but they contribute to society effectively when workers are socially orientated towards their jobs (Laaser & Karlsson, 2022; Popov & Baimurzina, 2024; Shin et al., 2023; Twenge & Campbell, 2012; Twenge et al., 2010; Wey Smola & Sutton, 2002; Yeung et al., 2015).

Agricultural research institutes provide a unique knowledge-rich context where scientists find ways to apply their scientific work to practical problems for farmers, society and policy makers (Mugwisi et

al., 2015; Mugwisi et al., 2012; Muzam, 2023; Sutherland & Jordaan, 2004). The knowledge workers of these organizations regularly work together across disciplines, exchange specialized expertise, and develop ideas and approaches for food security, sustainable agriculture and rural development (Mugwisi et al., 2015; Muzam, 2023; Scarbrough, 1999; Tumwebaze et al., 2025). The impact of agricultural research on society is not limited to the confines of the organization; employees' attitudes towards "socially important work" can shape their perceptions of their professional responsibilities and their relationships with colleagues and stakeholders (Benson & Brown, 2007; Blackler, 1995; Carolan, 2006; Davenport, 2005; Davenport et al., 2002). An understanding of social orientation is essential for the understanding of values that form the foundation for effective knowledge work (Ravid et al., 2025; Schröder, 2024; Shragay & Tziner, 2011; Singh et al., 2021; TANG et al., 2024).

Workers' orientation to work is affected by individual personality characteristics (Cucina et al., 2018; Hansen & Leuty, 2012; Harvell, 2009). Age is not just a mathematical number but represents different life stages, career phases, and life experiences that contribute to work values. Age in this sense may potentially affect workers' job satisfaction, engagement, work ethics and values (Heckhausen et al., 2017; Jones et al., 2019; Korn, 2010). Similarly, professional experience of workers is not just number of formal work but experiences of working life (Kowske et al., 2010; Lyons, 2004; Lyons & Kuron, 2014; Mann, 2022). Professional experience changes individual perceptions, attitudes, behaviors, and work values (Mujtaba & Alsua, 2011; Ng & Parry, 2016; Orfao et al., 2021). Therefore, age and professional work experience are two important background variables that are potentially associated with importance that workers attach to social and communal aspects of their formal work.

Past studies show that work values have been extensively studies in the context of health (Shahzad et al., 2025), education systems, corporate sector and human resources management (Harvell, 2009; Heckhausen et al., 2017; Jones et al., 2019; Korn, 2010; Kowske et al., 2010). But, despite the considerable research on values and attitudes individuals have towards their jobs, limited research have been conducted on work value in the context of agricultural research organizations (Jones et al., 2019; Lyons, 2004; Lyons & Kuron, 2014; Mann, 2022; Ng & Parry, 2016). These organizations are underexplored when it comes to research on work values. These organizations are significant because they create and disseminate new and innovate knowledge (Orfao et al., 2021; Palicka, 2016; Parry & Urwin, 2011; Pasko et al., 2021; Pogson et al., 2003).

Therefore, this study aims to identify differences in social orientation to work based on age and professional work experience of workers working in agricultural research organizations. The study specifically evaluates the importance that employees place on employment that benefits society, requires human interaction, develops cooperation and collaboration, gives opportunities for community engagement, and allows individuals to help others.

METHODOLOGY

The population of the study is knowledge workers working in various attached wings that work under the agriculture department of the Government of Punjab. Thirteen attached wings work under this department. Each wing works on a specific area of agriculture. For example, the Soil Survey of Punjab conducts regular surveys to assess the quality of soil for crops. Agricultural Information, Punjab is responsible for the dissemination of the latest agricultural research. The research wing named Ayub Agricultural Research Institute Faisalabad (AARI) is tasked with researching various crops that are grown in Punjab. The target population of the study is all knowledge workers working in agricultural research institutes that fall under the umbrella of the agricultural research wing of Punjab, Pakistan. These institutes research various crops. These institutes are in various regions of the Punjab province.

The sampling frame for this study consists of a list of research institutes from which the sample was drawn. This sampling frame has all knowledge workers working in agricultural research institutes that make up the agricultural research wing of Punjab. These research institutes include a variety of

specialized research institutes. Each research institute contributes a specific number of knowledge workers to the sampling frame. For instance, the Agricultural Biotechnology Research Institute in Faisalabad contributed 20 respondents, while Rapid Soil Fertility Research Institute, Lahore provided the largest number, with 124 knowledge workers.

Even some other smaller institutions like the Potato Research Institute in Sahiwal had only six respondents. In general, it is a variety of institutes which work on different crops, soil sciences and 71 environmental research. This sampling frame is a comprehensive sampling frame of knowledge workers working in agricultural research institutes across Punjab. The sample frame of all the knowledge workers was collected from Main library and IT department AARI, Faisalabad. This department has information on the workers working in different Agricultural Research Institutes in the province of Punjab.

This study was of a quantitative, cross sectional research design which was used to investigate the differences in autonomy orientation between the age and professional experience cohorts of knowledge workers. The data was gathered via a structured self-administered questionnaire with employees in research organizations. Data was collected using stratified random sampling technique. Five items were used as a measure of social orientation (Jutz et al., 2018). These include: a job where people can help others, opportunities to be of service to society, a job that involves personal interaction with other people, a job that encourages a sense of teamwork and collaboration, or a "a job where I can be of service to others in the community."

They evaluated preferences for jobs which involve giving help, working with others, assisting others, being together, and showing sympathy. The responses were made on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Descriptive statistics were carried out to present respondents' characteristics and their level of autonomy orientation. As the data did not satisfy the assumptions of normality, the Kruskal–Wallis H test (Ostertagova et al., 2014) was used to examine differences in autonomy orientation across age groups and professional experience groups. When the omnibus test was statistically significant, post hoc pairwise comparisons with adjusted p-values were conducted to identify specific group differences. Statistical analyses were performed using IBM SPSS Statistics, and statistical significance was determined at 0.05 level.

RESULTS AND DISCUSSION

Results and discussion section starts with the psychometric analysis of social orientation scale including internal reliability and validity.

Reliability and Validity of the Social Orientation to Work Scale

The psychometric properties of the Social Orientation to Work scale are presented in Table 1. The scale demonstrated good internal consistency. Cronbach's alpha of social orientation scale was .83. Item factor loadings ranged from .73 to .90. All five items loaded satisfactorily on their underlying construct. The highest loading was observed for the item "A job that allows someone to help other people" (.90), whereas the lowest loading was recorded for "Opportunities for community engagement through work" (.73). The collinearity statistics ranged from .321 to .601. Consequently, multicollinearity was not a concern. These results support the reliability and construct validity of the study scale.

Table 1. Psychometric Properties of Social Orientation to Work Scale

Items	Loadings	Alpha	CR	CS
Social orientation		**.828**	**.819**	
Social orientation 1	.858			.527
Social orientation 2	.890			.462
Social orientation 3	.844			.562
Social orientation 4	.730			.601
Social orientation 5	.901			.321

Descriptive Statistics

Table 2. Descriptive Statistics of Social Orientation to Work

Groups	N	Mean	S. D	Confidence Interval		Min	Max
Age				LB	UB		
21-33	122	12.53	1.22	12.31	12.75	11	15
34-46	130	8.92	1.58	8.65	9.20	7	14
47-60	98	8.14	2.87	7.57	8.72	3	14
Experience							
1-10	101	12.85	1.10	12.63	13.07	12	15
11-20	80	9.29	1.39	8.98	9.60	7	11
21-30	83	9.20	1.90	8.79	9.62	7	14
31-40	86	7.93	2.91	7.31	8.55	3	14

Table 2 presents the descriptive statistics for social orientation to work across age and professional experience groups. Among the age groups, employees aged 21–33 years reported the highest level of social orientation (M = 12.53, SD = 1.22, 95% CI [12.31, 12.75]), followed by those aged 34–46 years (M = 8.92, SD = 1.58, 95% CI [8.65, 9.20]) and those aged 47–60 years (M = 8.14, SD = 2.87, 95% CI [7.57, 8.72]). Likewise, study respondents with 1–10 years of professional experience reported the highest social orientation (M = 12.85, SD = 1.10, 95% CI [12.63, 13.07]), whereas those with 31–40 years of experience reported the lowest level (M = 7.93, SD = 2.91, 95% CI [7.31, 8.55]). The visual distribution of social orientation across age groups and professional experience groups is presented in Figure 1 and Figure 2, respectively.

Differences in Social Orientation Across Age Groups

After conducting descriptive tests, inferential tests were applied to test the study hypotheses. Moreover, post hoc test are also employed to draw pair wise comparisons. A Kruskal–Wallis test was conducted to examine differences in social orientation across age groups. As shown in Table 3, the analysis revealed a statistically significant difference among the three age groups, $H(2) = 183.05$, $p < .001$. Employees aged 21–33 years obtained the highest mean rank (274.32; Median = 12, Q1 = 12, Q3 = 14), followed by employees aged 34–46 years (Mean Rank = 128.14; Median = 9, Q1 = 8, Q3 = 10) and those aged 47–60 years (Mean Rank = 115.31; Median = 8, Q1 = 6, Q3 = 10). These findings indicate that social orientation differs significantly across age groups; therefore, Hypothesis 1 was supported. Post hoc pairwise comparisons using the Bonferroni adjustment (Table 4) indicated that employees aged 21–33 years had significantly higher social orientation than employees aged 34–46 years (adjusted $p < .001$) and those aged 47–60 years (adjusted $p < .001$). However, no statistically significant difference was found between the 34–46 and 47–60 years age groups (adjusted $p = 1.000$).

Table 3. Comparative Analysis of Social Orientation to Work Across Various Age And Professional Experience Groups

Groups	Mean rank	Median (Q1, Q3)	df	X2	P
Age			2	183.05	.000
21-33	274.32	12 (12, 14)			
34-46	128.14	9 (8, 10)			
47-60	115.31	8 (6,10)			
Experience			3	186.63	.000
1-10	288.73	12 (12, 14)			
11-20	141.43	9 (9, 11)			
21-30	139.06	8 (8, 11)			
31-40	109.38	8 (8, 10)			

Differences in Social Orientation Across Professional Experience Groups

A second Kruskal–Wallis test examined differences in social orientation across professional experience groups. The results revealed a statistically significant difference among the four experience categories, H (3) = 186.63, p < .001 (Table 3). Workers with 1–10 years of professional experience achieved the highest mean rank (288.73; Median = 12, Q1 = 12, Q3 = 14), whereas workers with 31–40 years of experience had the lowest mean rank (109.38; Median = 8, Q1 = 8, Q3 = 10). The remaining groups reported mean ranks of 141.43 for the 11–20 years group and 139.06 for the 21–30 years group. Accordingly, Hypothesis 2 was supported.

Bonferroni-adjusted post hoc comparisons (Table 4) showed that workers with 1–10 years of professional experience reported significantly higher social orientation than workers with 11–20 years, 21–30 years, and 31–40 years of experience (all adjusted p < .001). No statistically significant differences were observed between the 11–20 and 21–30 years groups (adjusted p = .237), between the 21–30 and 31–40 years groups (adjusted p = .326), or between the 11–20 and 31–40 years groups (adjusted p = 1.000). The study findings shows that social orientation is strongest among workers at the beginning of their careers and gradually declines with increasing professional experience.

Table 4. Pairwise Comparisons in Social Orientation to Work Across Age And Professional Experience Groups

Sample 1-Sample 2	Test Statistic	S. E	Std. Test Statistic	p	Adj. p
Age					
34-46-47-60	12.836	13.405	.958	.338	1.000
34-46-21-33	159.009	13.592	11.698	.000	.000
47-60-21-33	146.173	12.631	11.573	.000	.000
Experience					
21-30-31-40	29.677	15.418	1.925	.054	.326
21-30-11-20	32.048	15.565	2.059	.039	.237
21-30-1-10	179.344	14.702	12.198	.000	.000
31-40-11-20	2.371	15.700	.151	.880	1.000
31-40-1-10	149.667	14.845	10.082	.000	.000
11-20-1-10	147.296	14.997	9.822	.000	.000

Note. The significance level is .050. Significance values have been adjusted by the Bonferroni correction for multiple tests.

The results of the study show that knowledge workers in agricultural research organizations have quite different social orientations toward their jobs depending on their age and level of professional

experience. Compared to older and more seasoned workers, younger employees and those with fewer years of professional experience expressed a stronger social orientation. According to the study's findings, workers who are just starting out in their professions place a higher value on jobs that advance society, foster cooperation, foster interpersonal relationships, and offer chances to assist others. These choices might reflect their passion for teamwork, willingness to support company objectives, and increased drive to use their professional positions to positively impact society.

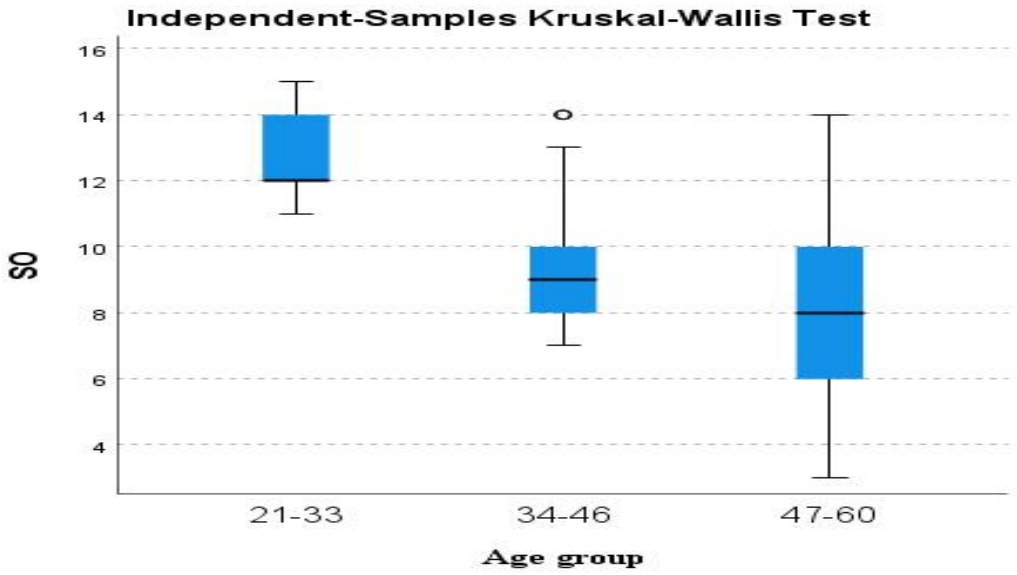


Figure 1: Visual Comparison in Social Orientation to Work Across Various Groups of Age.

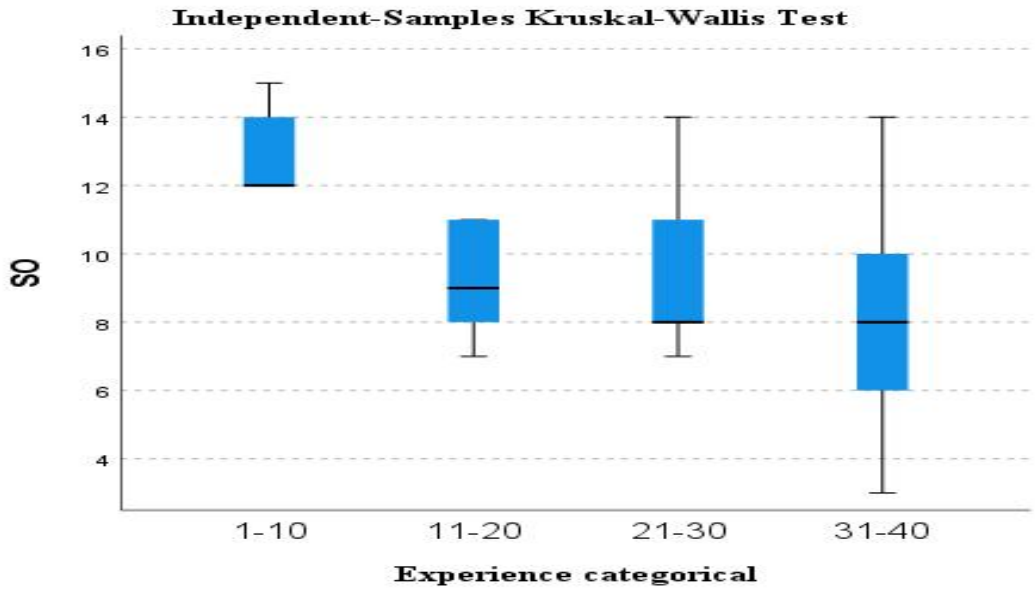


Figure 2: Visual Comparison in Social Orientation to Work Across Various Groups of Professional Experience.

On the other hand, the comparatively moderate social orientation of the older and more experienced workers can be attributed to a change in priorities in work over the years. The importance of the social elements of work could diminish as workers advance in their careers, as their duties in the organization increase, as they get used to work demands, and as their job goals evolution. The results underscore the need to foster a cooperative working culture and opportunities for community engagement for all stages of career in agricultural research organizations. It is hoped that such things can contribute to the maintenance of workers' social orientation and increase organizational effectiveness.

CONCLUSION

In conclusion, the study aimed to find the difference in social orientation to work based on age and professional experience of knowledge workers working in research organizations. The study results indicated that there is statistically significant difference between the social orientation of the age and professional experience groups to which the knowledge workers belong. Knowledge workers show greater tendency towards social orientations than do more experienced and old workers. It reinforces the importance of workforce diversity in order to ensure the development of more appropriate job designs and productivity. Collaborating with other people, doing social contribution, and providing jobs where you can help others can be the factors that stimulate involvement and commitment with agricultural research organizations.

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