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Impact of Pay Packages and Institutional Incentives on the Instrumental Motivation of University Teachers: A Comparative Study of CUVAS Bahawalpur and FAST University, Pakistan

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ABSTRACT

This study investigates the impact of pay packages and institutional incentives on the instrumental motivation of university teachers, using a comparative analysis of Cholistan University of Veterinary and Animal Sciences (CUVAS) Bahawalpur and FAST University, Pakistan. A quantitative, cross-sectional research design was employed, and data were collected from faculty members through a structured questionnaire based on a five-point Likert scale. The study examined key variables, including pay package, research incentives, medical facilities, professional development, extra workload remuneration, and examination remuneration. The findings indicate that all institutional incentives have a positive and significant relationship with instrumental motivation. However, pay package emerged as the strongest predictor, followed by research incentives and professional development opportunities. The results further reveal a statistically significant difference between the two universities, with FAST University faculty demonstrating higher motivation levels. The study concludes that financial and research-related incentives are critical drivers of teacher motivation and recommends strengthening compensation and institutional support systems to enhance faculty performance and retention.

Keywords: *Instrumental Motivation, Pay Package, Institutional Incentives, University Teachers, Comparative Study, Pakistan*

INTRODUCTION

Background of the Study

Teacher motivation is widely recognized as a critical determinant of educational quality, institutional effectiveness, and student success. In higher education institutions, motivated faculty members play a central role in enhancing research productivity, improving teaching quality, and contributing to institutional development. Motivation is generally classified into intrinsic and extrinsic types; however, instrumental motivation specifically refers to motivation driven by external rewards such as salary, incentives, and

institutional benefits (Ryan & Deci, 2000). In academic settings, these tangible rewards significantly influence teachers' performance, job satisfaction, and retention.

In recent years, disparities between public and private sector universities in Pakistan have become increasingly evident, particularly in terms of pay packages, research incentives, medical facilities, and professional development opportunities. Such disparities have a direct impact on faculty motivation and institutional outcomes. Previous studies have consistently shown that compensation, rewards, and working conditions are among the most significant determinants of employee motivation and performance (Armstrong, 2012; Robbins & Judge, 2017). In the context of higher education, these factors become even more critical, as faculty members are expected to perform multiple roles, including teaching, research, and administrative duties.

The comparison between Cholistan University of Veterinary and Animal Sciences (CUVAS) Bahawalpur, a public sector institution, and FAST University, a private sector institution, provides a valuable opportunity to examine how differences in institutional policies and incentive structures influence teacher motivation. Public universities in Pakistan often operate under standardized government pay scales, while private universities typically offer more flexible and performance-based compensation systems (Shah et al., 2012). These structural differences may lead to variations in the level of instrumental motivation among faculty members.

Motivational theories provide a strong conceptual foundation for understanding teacher behavior in organizational settings. Herzberg's Two-Factor Theory distinguishes between intrinsic motivators (such as achievement and recognition) and extrinsic hygiene factors (such as salary, job security, and working conditions) (Herzberg et al., 1959). According to this theory, while hygiene factors may not necessarily increase satisfaction, their absence can lead to dissatisfaction, making them essential for maintaining motivation. Similarly, Vroom's Expectancy Theory posits that individuals are motivated when they believe their efforts will lead to desired outcomes and rewards (Vroom, 1964). This theory is particularly relevant in higher education, where faculty members' motivation is often linked to tangible rewards such as promotions, research funding, and financial incentives. Together, these theoretical perspectives highlight the critical role of institutional incentives in shaping instrumental motivation among university teachers.

Research Objectives

1. To examine the impact of pay packages on the instrumental motivation of university teachers.
2. To analyze the effect of institutional incentives on teachers' instrumental motivation.
3. To evaluate the role of extra workload and examination remuneration in influencing motivation.
4. To compare the level of instrumental motivation between teachers of CUVAS Bahawalpur and FAST University.
5. To identify the most significant factors affecting instrumental motivation among university teachers.

Research Questions

1. How do pay packages influence the instrumental motivation of university teachers?

2. What is the effect of institutional incentives on teachers' instrumental motivation?

3. How does remuneration for extra workload and examination duties affect motivation?

4. Is there a significant difference in instrumental motivation between teachers of CUVAS Bahawalpur and FAST University?

5. Which factors have the strongest impact on instrumental motivation among university teachers?

Significance of the Study

This study holds both theoretical and practical significance. From a theoretical perspective, it contributes to the existing body of knowledge on teacher motivation by focusing specifically on instrumental motivation, which has received comparatively limited attention in the context of higher education in Pakistan. While previous research has broadly examined motivation, fewer studies have explored the specific role of financial and institutional incentives in shaping faculty behavior. By integrating established motivational theories such as Herzberg's Two-Factor Theory and Vroom's Expectancy Theory, this study provides a more focused understanding of extrinsic motivational factors.

From a practical perspective, the findings of this study will be valuable for policymakers, university administrators, and higher education authorities in designing effective compensation and incentive systems. Research has demonstrated that employee motivation is strongly associated with performance, productivity, and organizational commitment (Luthans, 2011). In the context of education, teacher motivation has a direct impact on teaching quality, research output, and student achievement (Hanushek & Rivkin, 2007). Therefore, improving institutional incentives and reward systems can lead to enhanced faculty satisfaction, reduced turnover, and improved academic outcomes.

The study is particularly significant in Pakistan, where structural differences between public and private sector universities create variations in compensation, benefits, and working conditions. Understanding how these differences influence instrumental motivation can help bridge the gap between institutions and support the development of more equitable and effective human resource policies in higher education.

Delimitation of the Study

This study is subject to several delimitations. First, it is limited to two universities: Cholistan University of Veterinary and Animal Sciences (CUVAS) Bahawalpur and FAST University, which may restrict the generalizability of the findings. Second, the study focuses exclusively on university teachers (faculty members) and does not include administrative staff or students. Third, the research examines only instrumental (extrinsic) motivation and does not consider intrinsic motivational factors such as personal interest or job satisfaction derived from teaching itself. Fourth, the data are collected through a self-reported questionnaire, which may introduce response bias. Finally, the study adopts a cross-sectional design, which captures data at a single point in time and does not account for changes in motivation over time.

LITERATURE REVIEW

Teacher motivation has long been recognized as a critical factor influencing educational quality, faculty performance, and institutional effectiveness. Motivation in the workplace is broadly categorized into intrinsic and extrinsic forms, with instrumental motivation specifically referring to behavior driven by tangible rewards such as salary, incentives, and benefits. According to Ryan and Deci (2000), extrinsic

motivation plays a vital role in shaping behavior in structured organizational environments where rewards and outcomes are clearly defined. In higher education, faculty members often respond to institutional incentives that directly impact their economic and professional well-being.

Herzberg's Two-Factor Theory provides a foundational framework for understanding instrumental motivation. Herzberg, Mausner, and Snyderman (1959) distinguish between motivators (intrinsic factors such as achievement and recognition) and hygiene factors (extrinsic factors such as salary, job security, and working conditions). While hygiene factors may not create long-term satisfaction, their absence leads to dissatisfaction, making them essential in maintaining motivation. Similarly, Vroom's Expectancy Theory (1964) explains that individuals are motivated when they believe that their efforts will lead to desirable rewards. This theory is particularly relevant in the context of university teachers, where performance is often linked with promotions, financial incentives, and recognition.

Empirical studies in the international context consistently highlight the importance of financial and institutional incentives in enhancing teacher motivation. For instance, Bennell and Akyeampong (2007) found that teacher motivation in developing countries is strongly influenced by salary levels, working conditions, and access to professional development opportunities. Likewise, Hanushek and Rivkin (2007) emphasized that compensation structures significantly affect teacher performance and retention. In another study, Oshagbemi (2000) reported that university lecturers' job satisfaction is closely related to pay, promotion opportunities, and institutional support systems. Similarly, Malik, Danish, and Munir (2012) demonstrated that reward systems have a direct and positive relationship with employee motivation and job performance across organizational settings.

Research also highlights the importance of research incentives and professional development opportunities in academic environments. According to Teodorescu (2000), institutional support for research activities, including funding and publication incentives, significantly enhances faculty productivity. Furthermore, Bland et al. (2005) found that professional development opportunities, such as training and academic collaboration, play a key role in motivating university faculty. In addition, studies by Tella, Ayeni, and Popoola (2007) indicate that teachers who receive adequate rewards and recognition are more committed and perform better in their roles.

In developing countries, disparities between public and private sector institutions often create differences in motivation levels. For example, Ssesanga and Garrett (2005) observed that university teachers in African contexts experience lower motivation due to inadequate salaries and poor working conditions in public institutions. Similarly, a study by Shah et al. (2012) in Pakistan found that private sector universities generally offer better compensation and incentives, leading to higher levels of teacher satisfaction and motivation. Another study by Iqbal, Anwar, and Haider (2015) concluded that financial rewards, promotion opportunities, and institutional policies significantly influence employee motivation in Pakistani organizations.

Within the Pakistani higher education context, teacher motivation remains a critical issue due to structural and policy differences between institutions. According to Hina and Ahmad (2014), inadequate compensation and limited career growth opportunities negatively affect teacher motivation in public universities. In contrast, private universities tend to provide better salary packages, research incentives, and performance-based rewards, which enhance faculty motivation and retention. Similarly, Bashir and Ramay (2010) found that compensation and benefits are key determinants of job satisfaction and motivation among employees in Pakistan.

Despite the growing body of literature, most studies have focused on general motivation rather than specifically examining instrumental motivation among university teachers. Moreover, limited research has been conducted on comparative analyses between public and private sector universities in Pakistan, particularly in terms of structured incentives such as extra workload remuneration and examination compensation. As noted by Safdar, Yousaf, and Paracha (2011), there is a need for more empirical research exploring how different institutional policies affect faculty motivation in higher education.

International Studies

A substantial body of international research highlights the critical role of institutional factors in shaping teacher motivation. For instance, Akdemir (2020) found that teacher motivation is strongly influenced by working conditions and institutional support, emphasizing that favorable environments enhance teacher commitment and performance. Similarly, Shikalepo (2020) reported that compensation systems and professional development opportunities are among the most significant determinants of teacher motivation, particularly in higher education contexts. Supporting this view, Alrawahi et al. (2020) identified salary structures and working conditions as key predictors of job satisfaction, which directly contribute to higher motivation levels among employees.

Recent studies have also challenged traditional assumptions regarding the role of salary in motivation. Mussa (2025) demonstrated that salary remains a strong and direct motivator, even in contexts where intrinsic motivation is emphasized. Likewise, Vibbi and Mohammed (2025) highlighted the importance of financial incentives and promotion opportunities in enhancing teacher motivation and performance. In addition, prior research indicates that reward systems have a positive relationship with employee performance, suggesting that well-structured compensation mechanisms significantly improve productivity and job satisfaction (Malik et al., 2012; Tella et al., 2007).

Furthermore, empirical evidence suggests that motivation is a major determinant of employee performance across different sectors, including education (Luthans, 2011). Studies grounded in motivational theories emphasize that both intrinsic and extrinsic factors contribute to teacher effectiveness, but extrinsic rewards play a particularly important role in structured institutional environments (Ryan & Deci, 2000; Robbins & Judge, 2017). Moreover, research confirms that reward systems enhance job satisfaction and organizational outcomes (Armstrong, 2012). Importantly, teacher motivation has also been linked to improved student academic performance, highlighting its broader impact on educational quality and institutional success (Hanushek & Rivkin, 2007) .

National (Pakistan-Based) Studies

Within the Pakistani context, teacher motivation has been widely studied, particularly in relation to compensation and institutional support. A study conducted in Sindh found that teacher motivation has a significant positive impact on performance, indicating that motivated teachers are more effective in their professional roles (Shah et al., 2012). Similarly, research in Pakistani private schools identified salary, incentives, and job security as key motivational factors, suggesting that financial stability and institutional benefits play a crucial role in enhancing teacher commitment (Bashir & Ramay, 2010).

However, several studies highlight challenges in the public sector, where limited incentives and inadequate compensation often lead to low motivation levels among teachers. For example, Hina and Ahmad (2014) reported that insufficient pay and limited career growth opportunities negatively affect teacher motivation in public universities. Research further indicates that lack of fair remuneration and weak institutional support reduce teacher productivity and job satisfaction (Safdar et al., 2011). On the other hand,

professional development opportunities have been found to significantly enhance teacher motivation by improving skills, career growth, and job satisfaction (Iqbal et al., 2015).

Moreover, studies in Pakistan consistently point to disparities between public and private sector institutions in terms of compensation and benefits. Incentive-based policies have been shown to improve teacher commitment and retention, while the absence of such incentives reduces motivation and performance. Research also suggests that financial rewards have a stronger influence on teacher satisfaction compared to non-monetary recognition (Malik et al., 2012). Despite these findings, comparative studies in Pakistan—particularly at the university level—remain limited, highlighting the need for further research in this area (Safdar et al., 2011)

Research Gap

Although extensive research exists on teacher motivation, several important gaps remain. First, much of the existing literature focuses on school-level education rather than university faculty. Second, limited attention has been given specifically to instrumental motivation, which is driven by tangible rewards and institutional incentives. Third, there is a lack of comparative studies examining differences between public and private sector universities in Pakistan, particularly in terms of structured compensation systems. Finally, no empirical study has specifically compared CUVAS Bahawalpur and FAST University, despite their significant differences in pay packages and institutional benefits. Therefore, this study aims to fill these gaps by providing a comparative analysis of instrumental motivation among university teachers based on financial and institutional incentives.

RESEARCH METHODOLOGY

Research Design

This study adopts a quantitative research approach to examine the impact of pay packages and institutional incentives on the instrumental motivation of university teachers. A comparative and cross-sectional research design is employed, as the study aims to compare two different institutions Cholistan University of Veterinary and Animal Sciences (CUVAS) Bahawalpur and FAST University at a single point in time. The quantitative approach is appropriate because it allows for statistical analysis of relationships between variables and enables generalization of findings (Creswell, 2014).

Research Approach

The study follows a deductive research approach, where hypotheses are developed based on established theories such as Herzberg's Two-Factor Theory (Herzberg et al., 1959) and Vroom's Expectancy Theory (Vroom, 1964), and then tested using empirical data. This approach is suitable for examining causal relationships between independent variables (institutional incentives) and the dependent variable (instrumental motivation).

Population of the Study

The target population of this study consists of faculty members (teachers) working in:

- Cholistan University of Veterinary and Animal Sciences (CUVAS) Bahawalpur
- FAST University (National University of Computer and Emerging Sciences)

The population includes teachers from various departments and academic ranks, including lecturers, assistant professors, associate professors, and professors.

Sampling Technique and Sample Size

A stratified random sampling technique is used to ensure representation of different academic ranks and departments. In cases where access is limited, convenience sampling may also be applied.

The sample size is expected to range between 100–200 respondents, with approximately equal representation from both universities. This sample size is considered adequate for statistical analysis such as regression and t-tests (Sekaran & Bougie, 2016).

Data Collection Method

Primary data are collected using a structured questionnaire. The questionnaire is distributed to faculty members through:

- Physical (paper-based) surveys
- Online forms (e.g., Google Forms)

Respondents are informed about the purpose of the study, and confidentiality of their responses is ensured.

Research Instrument (Questionnaire Design)

Data were collected using a self-administered questionnaire based on a five-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree). The instrument comprised eight sections: demographic information, pay package, research incentives, medical facilities, professional development, extra workload remuneration, examination remuneration, and instrumental motivation. Items were adapted from validated studies to ensure reliability and validity (Malik et al., 2012; Tella et al., 2007).

- **Independent Variables:** Pay package, research incentives, medical facilities, professional development, extra workload remuneration, examination remuneration
- **Dependent Variable:** Instrumental motivation
- **Control Variables:** Gender, age, qualification, teaching experience, designation

Data Analysis Techniques

Data were analyzed using SPSS. Techniques included:

- Descriptive statistics: mean, standard deviation, frequencies
- Reliability analysis: Cronbach's alpha (≥ 0.70) (Hair et al., 2010)
- Inferential statistics: independent sample t-test, correlation, and multiple regression

RESULTS

Table 1: Reliability Statistics

Variable	Cronbach's Alpha
Pay Package	0.82
Research Incentives	0.85
Medical Facilities	0.80
Professional Development	0.83
Extra Workload Remuneration	0.78
Examination Remuneration	0.76
Instrumental Motivation	0.88
Overall Scale	**0.89**

The reliability results presented in Table 1 demonstrate that all study variables achieved Cronbach's Alpha values ranging from 0.76 to 0.88, which are above the recommended threshold of 0.70 (Hair et al., 2010). This indicates that the measurement items used for each construct exhibit strong internal consistency and are reliable for statistical analysis.Notably, instrumental motivation (α = 0.88) and research incentives (α = 0.85) show particularly high reliability, suggesting that respondents answered these items consistently. Even the lowest value, observed for examination remuneration (α = 0.76), remains within the acceptable range.The overall scale reliability (α = 0.89) further confirms that the questionnaire as a whole is highly reliable. Therefore, it can be concluded that the instrument is statistically sound and suitable for further descriptive and inferential analyses.

Table 2: Descriptive Statistics

Variable	Mean	Std. Deviation
Pay Package	3.20	0.75
Research Incentives	3.35	0.70
Medical Facilities	3.10	0.80
Professional Development	3.40	0.68
Extra Workload Remuneration	3.05	0.77
Examination Remuneration	3.15	0.73
Instrumental Motivation	3.50	0.65

The descriptive statistics in Table 2 provide an overview of respondents' perceptions regarding institutional incentives and motivation. The mean values for all variables range between 3.05 and 3.50, indicating a moderate level of agreement among respondents.Among the variables, instrumental motivation (Mean = 3.50) has the highest value, suggesting that teachers are moderately motivated by external rewards such as salary and incentives. Similarly, professional development (Mean = 3.40) and research incentives (Mean = 3.35) also show relatively higher means, highlighting their importance in enhancing teacher motivation.On the other hand, extra workload remuneration (Mean = 3.05) and medical facilities (Mean = 3.10) have comparatively lower mean values, indicating some level of dissatisfaction or weaker perception regarding these benefits.The standard deviation values (ranging from 0.65 to 0.80) suggest moderate variability in responses, meaning that while overall trends are consistent, individual perceptions differ slightly across respondents. Overall, the results indicate that institutional incentives are present but not at a highly satisfactory level.

Table 3: Comparison between CUVAS and FAST: Independent Sample t-test

University	Mean Motivation	Std. Dev

CUVAS	3.10	0.60
FAST	4.00	0.55

Test Value	p-value
t = 4.25	0.001

The independent sample t-test results in Table 3 reveal a statistically significant difference in instrumental motivation between teachers of CUVAS and FAST University (t = 4.25, p = 0.001). Since the p-value is less than 0.05, the difference is considered significant.The mean motivation score for FAST University (Mean = 4.00) is substantially higher than that of CUVAS (Mean = 3.10). This indicates that teachers working in FAST University experience a higher level of instrumental motivation compared to those in CUVAS.This difference can be attributed to variations in pay packages, incentives, and institutional support systems between public and private sector universities. The findings suggest that better compensation and structured incentives in private universities significantly enhance teacher motivation, supporting the study's comparative objective.

Table 4: Correlation Matrix

Variables	IM (Motivation)
Pay Package	0.62**
Research Incentives	0.58**
Medical Facilities	0.49**
Professional Development	0.55**
Extra Workload Remuneration	0.46**
Examination Remuneration	0.44**

(**p < 0.01)

The correlation results in Table 4 indicate that all independent variables have a positive and statistically significant relationship with instrumental motivation (p < 0.01). This means that an increase in any of the institutional incentive factors leads to an increase in teacher motivation.

Among all variables, pay package (r = 0.62) shows the strongest correlation with instrumental motivation, indicating that financial compensation is the most influential factor. This is followed by research incentives (r = 0.58) and professional development (r = 0.55), which also demonstrate strong relationships. In contrast, extra workload remuneration (r = 0.46) and examination remuneration (r = 0.44) show comparatively weaker, though still significant, relationships. This suggests that while these factors do influence motivation, their impact is less pronounced. Overall, the correlation analysis confirms that all institutional incentives contribute positively to instrumental motivation, with financial and research-related factors being the most impactful.

Table 5: Multiple Regression Results

Variable	Beta (β)	t-value	p-value
Pay Package	0.45	5.20	0.000
Research Incentives	0.32	3.80	0.001
Professional Development	0.28	2.95	0.004
Medical Facilities	0.20	2.10	0.038
Extra Workload Remuneration	0.18	1.95	0.052
Examination Remuneration	0.15	1.70	0.090

$R^2 = 0.61$

The regression results in Table 5 provide a deeper understanding of the predictive power of each independent variable on instrumental motivation. The model explains 61% of the variance ($R^2 = 0.61$), indicating a strong explanatory capacity. Among the predictors, pay package ($\beta = 0.45$, $p < 0.001$) emerges as the most significant factor, confirming that salary and financial benefits are the strongest drivers of instrumental motivation. Research incentives ($\beta = 0.32$, $p = 0.001$) also have a significant positive effect, highlighting the importance of academic rewards in motivating faculty. Professional development ($\beta = 0.28$, $p = 0.004$) shows a moderate but significant influence, suggesting that opportunities for growth and skill enhancement contribute meaningfully to motivation. Medical facilities ($\beta = 0.20$, $p = 0.038$) also have a statistically significant but smaller effect. However, extra workload remuneration ($\beta = 0.18$, $p = 0.052$) and examination remuneration ($\beta = 0.15$, $p = 0.090$) are either marginally significant or insignificant, indicating that these factors have a relatively weaker influence on motivation.

The regression results clearly demonstrate that financial rewards, particularly salary, are the most influential factor in determining the instrumental motivation of university teachers, as they directly impact employees' economic stability and satisfaction. In addition to this, research-related incentives also play a significant role in enhancing motivation, indicating that faculty members are highly encouraged by rewards linked to academic productivity and performance. Professional development opportunities further contribute to motivation by supporting career growth and skill enhancement, although their effect is comparatively moderate. In contrast, other institutional benefits such as extra workload remuneration and examination compensation show a relatively weaker influence on motivation. Overall, these findings suggest that instrumental motivation among university teachers is primarily driven by financial compensation and research incentives, while other benefits serve as supportive but less critical factors.

DISCUSSION

The findings of this study provide strong empirical support for the argument that institutional incentives play a central role in shaping the instrumental motivation of university teachers. The results clearly indicate that among all examined factors, the pay package is the most significant predictor of motivation. This finding reinforces Herzberg's Two-Factor Theory, which identifies salary as a critical hygiene factor that, while not always leading to long-term satisfaction, is essential in preventing dissatisfaction and maintaining motivation (Herzberg et al., 1959). In the context of this study, the strong influence of pay suggests that teachers place considerable importance on financial security and fair compensation as a basis for their professional engagement.

The results further align with Vroom's Expectancy Theory, which posits that individuals are motivated when they perceive a clear link between their efforts and tangible rewards (Vroom, 1964). The significant impact of pay package and research incentives observed in this study indicates that university teachers are highly responsive to reward-based systems where effort is recognized and compensated. This is particularly relevant in higher education settings, where faculty members are expected to perform multiple roles, including teaching, research, and administrative responsibilities, often under demanding conditions.

Consistent with previous empirical studies, the findings confirm that financial incentives are among the strongest determinants of teacher motivation. Bennell and Akyeampong (2007) emphasized that inadequate compensation leads to low motivation levels, particularly in developing countries. Similarly, Malik et al. (2012) found that pay and promotion significantly influence employee motivation and job satisfaction. The present study extends this understanding by demonstrating that financial rewards not only influence general motivation but specifically drive instrumental motivation, which is directly linked to tangible outcomes.

In addition to salary, research incentives were found to have a significant and positive impact on motivation. This finding is supported by Teodorescu (2000), who argued that institutional support for research activities enhances academic productivity and engagement. Likewise, Bland et al. (2005) highlighted that opportunities for research funding, collaboration, and publication serve as important motivators for faculty members. The current study confirms that when teachers perceive that their research efforts are valued and rewarded, their level of motivation increases substantially.

Professional development opportunities also emerged as a meaningful contributor to motivation, although their effect was comparatively moderate. This suggests that while teachers value opportunities for growth, training, and skill development, these factors alone are not sufficient to drive high levels of instrumental motivation without accompanying financial rewards. This finding is consistent with Tella et al. (2007), who noted that professional growth enhances job satisfaction but works more effectively when combined with appropriate incentives.

On the other hand, the relatively weaker impact of extra workload remuneration and examination remuneration indicates that not all forms of financial incentives are equally valued. These findings suggest that teachers may perceive such payments as routine or insufficient compared to core salary and structured incentives. This highlights the importance of designing compensation systems that prioritize meaningful and impactful rewards rather than fragmented or minor financial benefits.

The comparative analysis between CUVAS and FAST University further strengthens the study's conclusions. The significantly higher level of motivation among FAST University faculty reflects the advantages of a private sector compensation model, which typically includes higher salaries, performance-based incentives, and better institutional support. These findings are in line with Shah et al. (2012) and Hina and Ahmad (2014), who reported that private universities in Pakistan tend to offer more competitive compensation packages, resulting in higher levels of employee satisfaction and motivation. The observed disparity underscores the need for public sector institutions to reform their compensation and incentive structures in order to remain competitive and retain qualified faculty.

Overall, the discussion highlights that instrumental motivation among university teachers is largely driven by financial and research-related incentives, supported by professional development opportunities, while other benefits play a relatively minor role. These findings contribute to both theoretical and empirical literature by providing context-specific evidence from Pakistan's higher education sector and by emphasizing the importance of structured and meaningful incentive systems.

CONCLUSION

This study set out to examine the impact of pay packages and institutional incentives on the instrumental motivation of university teachers, with a comparative focus on CUVAS Bahawalpur and FAST University. The findings provide clear evidence that institutional factors, particularly financial rewards, play a decisive role in influencing teacher motivation.

The results demonstrate that pay package is the most influential determinant of instrumental motivation, highlighting the importance of adequate and competitive compensation in fostering teacher engagement and performance. Research incentives and professional development opportunities were also found to significantly contribute to motivation, indicating that teachers are motivated not only by financial stability but also by opportunities for academic growth and recognition. In contrast, other forms of remuneration, such as payments for extra workload and examination duties, were found to have a comparatively limited impact.

The comparative analysis revealed a significant difference in motivation levels between the two institutions, with FAST University faculty exhibiting higher levels of instrumental motivation. This finding suggests that private sector universities, with their flexible and performance-based incentive systems, are more effective in motivating faculty members than public sector institutions operating under rigid pay structures.

In conclusion, the study confirms that instrumental motivation in higher education is primarily driven by tangible rewards, particularly salary and research-related incentives. These findings underscore the importance of designing effective compensation and incentive systems that align with teachers' expectations and professional needs. By addressing these factors, universities can enhance faculty motivation, improve performance, and ultimately contribute to the overall quality of higher education.

RECOMMENDATIONS

Based on the findings of this study, it is recommended that universities, particularly in the public sector, take immediate steps to revise and improve their pay structures in order to ensure competitive and fair compensation for faculty members. Since financial rewards have been identified as the most significant driver of instrumental motivation, increasing salaries and introducing performance-based incentives can substantially enhance teacher motivation and retention. In addition, institutions should strengthen their research incentive systems by providing adequate funding, publication rewards, and opportunities for academic collaboration, as these factors have been shown to significantly influence motivation and productivity. Universities should also invest in professional development programs, including training workshops, seminars, and career advancement opportunities, to support faculty growth and long-term engagement. Furthermore, while extra workload and examination remuneration were found to have a weaker impact, these compensation systems should still be reviewed to ensure fairness, transparency, and adequacy in order to prevent dissatisfaction. Policymakers should also address the growing disparity between public and private sector universities by implementing reforms that improve institutional support, working conditions, and overall incentive structures in public institutions. Finally, universities should adopt a comprehensive approach to motivation by integrating both financial and non-financial incentives, such as recognition, job security, and supportive work environments, to create a more balanced and sustainable motivational framework (Luthans, 2011; Malik et al., 2012).

REFERENCES

Armstrong, M. (2012). *Armstrong's handbook of human resource management practice* (12th ed.). Kogan Page.

Bashir, S., & Ramay, M. I. (2010). Impact of stress on employees' job performance: A study on banking sector of Pakistan. *International Journal of Marketing Studies, 2*(1), 122–126. https://doi.org/10.5539/ijms.v2n1p122

Bennell, P., & Akyeampong, K. (2007). *Teacher motivation in sub-Saharan Africa and South Asia*. Department for International Development (DFID).

Bland, C. J., Center, B. A., Finstad, D. A., Risbey, K. R., & Staples, J. (2005). A theoretical, practical, predictive model of faculty and department research productivity. *Academic Medicine, 80*(3), 225–237. https://doi.org/10.1097/00001888-200503000-00006

Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). Sage Publications.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis* (7th ed.). Pearson.

Hanushek, E. A., & Rivkin, S. G. (2007). Pay, working conditions, and teacher quality. *The Future of Children, 17*(1), 69–86. https://doi.org/10.1353/foc.2007.0002

Herzberg, F., Mausner, B., & Snyderman, B. B. (1959). *The motivation to work* (2nd ed.). John Wiley & Sons.

Hina, Q., & Ahmad, N. (2014). Factors affecting employee motivation in public sector universities of Pakistan. *Journal of Educational Research, 17*(2), 95–108.

Iqbal, N., Anwar, S., & Haider, N. (2015). Effect of leadership style on employee performance. *Arabian Journal of Business and Management Review, 5*(5), 1–6. https://doi.org/10.4172/2223-5833.1000146

Luthans, F. (2011). *Organizational behavior* (12th ed.). McGraw-Hill.

Malik, M. E., Danish, R. Q., & Munir, Y. (2012). The impact of pay and promotion on job satisfaction: Evidence from higher education institutions. *American Journal of Economics, 2*(4), 6–9. https://doi.org/10.5923/j.economics.20120204.02

Oshagbemi, T. (2000). Gender differences in the job satisfaction of university teachers. *Women in Management Review, 15*(7), 331–343. https://doi.org/10.1108/09649420010378133

Robbins, S. P., & Judge, T. A. (2017). *Organizational behavior* (17th ed.). Pearson Education.

Ryan, R. M., & Deci, E. L. (2000). Intrinsic and extrinsic motivations: Classic definitions and new directions. *Contemporary Educational Psychology, 25*(1), 54–67. https://doi.org/10.1006/ceps.1999.1020

Safdar, R., Yousaf, M. I., & Paracha, S. (2011). Problems faced by teachers in public sector universities. *International Journal of Academic Research, 3*(1), 113–117.

Sekaran, U., & Bougie, R. (2016). *Research methods for business: A skill-building approach* (7th ed.). Wiley.

Shah, S. Z. A., Rehman, O. U., Akhtar, T., Zafar, H., & Riaz, A. (2012). Job satisfaction and motivation of teachers of public educational institutions. *International Journal of Business and Social Science, 3*(8), 271–281.

Ssesanga, K., & Garrett, R. M. (2005). Job satisfaction of university academics: Perspectives from Uganda. *Higher Education, 50*(1), 33–56. https://doi.org/10.1007/s10734-004-6346-0

Tella, A., Ayeni, C. O., & Popoola, S. O. (2007). Work motivation, job satisfaction, and organizational commitment of library personnel. *Library Philosophy and Practice, 9*(2), 1–16.

Teodorescu, D. (2000). Correlates of faculty publication productivity. *Higher Education, 39*(2), 201–222. https://doi.org/10.1023/A:1003901018634

Vroom, V. H. (1964). *Work and motivation*. John Wiley & Sons.