The Impact of Remote Work on Employee Productivity with moderating role of AI tools: Digital Marketing Sector of Pakistan.

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Abstract

The rise of remote work and AI tools in increase digital marketing sector of Pakistan. This research investigates the impact of remote work on employee productivity with moderating role of AI tools in digital marketing context. Adopting the qualitative method through thematic approach, conduct semi structured interview to Professionals or experts the employee and working remotely in Digital marketing agencies and companies. The investigation aim, challenges or benefits unique to the Pakistani digital marketing landscape. The influence of artificial intelligence advancements and remote work arrangements on worker productivity in Pakistan's digital marketing sector is investigated in this study. Semi-structured interviews were utilized to pinpoint the specific consequences of these two trends. Digital remote work has been demonstrated to improve work-life balance, perceived productivity, emotions of loneliness, and communication problems. Additionally, it was shown that opinions on AI applications in the same field were largely favorable, especially for technological instruments intended to boost productivity, such chatbots for customer service or content automation. However, a number of hazards were noted by poll respondents, including a growing dependence on technology and a deterioration in the caliber of independent critical analysis. This information can guide digital marketing companies in Pakistan on potential advantages and considerations when adopting remote work models.

Introduction.

Due to an upsurge in internet users and advances in technology in the past few years, Pakistan's digital marketing industry has seen enormous expansion (PTA). Businesses are beginning a swift and broad transition toward remote work arrangements, which makes digital technology appropriate for knowledge-intensive tasks (P. Leonardi, 2020). The COVID-19 pandemic's move to remote labor had an effect on workers' wellbeing and productivity (Vincenzi et al., 2022). Pakistani SMEs are utilizing remote working as a tactic to boost worker morale and raise satisfaction with work (Rehman et al., 2023). Adoption of remote work reduces costs and provides flexibility for work-life balance, but it also presents managerial, technological, and communication issues (R. Ferreira et al., 2021).Employee engagement levels suffered as a result of remote working during the COVID-19 shutdown due to increased workloads, online presenteeism, job instability, and inadequate adaption (Adisa et al., 2021).

The biggest challenge of remote work according to R. Ferreira et al. (2021) Indicate that professionals adopting remote work are most concerned with management, communication, and technological obstacles. However, their influence is more favorable. Programs that allow employees to work from anywhere enhance productivity by 4.4% without changing the frequency of rework. (P. Choudhury et al.)Particularly distant employment has a significant

influence on Pakistan's communications sector. In Pakistan's D. G. Khan telecommunications industry, employee performance is positively impacted by training, pay, and work participation (Iqbal et al., 2013). In Multan, Pakistan, corporate social responsibility has a positive and moderating effect on the sustainable performance of businesses. Social media marketing techniques are one such instrument (Abbas et al., 2019).

To advance, this research looks at how artificial intelligence (AI) technologies' impact the relationship between remote work and employee productivity in the Pakistani digital marketing sector. Although AI has substantial benefits in multiple domains According to Min (2010) and Tewari & Pant (2020) Using AI enhances decision-making and boosts SCM and HRM performance. By processing data, automating repetitive tasks, and evaluating interactions and emotions, artificial intelligence (AI) may improve marketing research, strategy, and activities (Huang & Rust, 2020). Although AI-based technologies can improve software quality assurance, only 70% of Pakistani software companies now make good use of them (Qazi et al., 2022). There hasn't been much study on how AI technologies affect RW or EP, thus we investigate how AI and the Pakistani digital marketing industry work together.

The purpose of this study was to examine how employee productivity is affected by working remotely and how AI technologies function as a moderator in Pakistan's digital marketing industry. This study conducted semi-structured

interviews with businesses and professionals in digital marketing. The purpose of this study is to offer crucial data for comprehending how the labor pattern in the Pakistani region is changing. Digital marketing professionals and firms who are thinking about implementing remote work requirements or have already done so may find this study to be useful in making decisions. Lastly, this study will help Pakistan's workers in digital marketing have a better and more productive work environment.
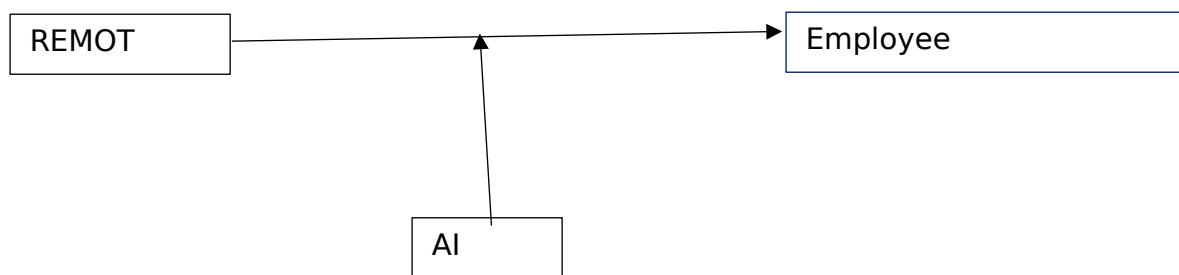
Theratical Framework

Literature Review

Remote work and Employee productivity.

The future of work is being transformed by the complex idea of remote work, which involves material, social, and symbolic resources together with distances in terms of psychology, time, technology, and structure (P. M. Leonardi et al., 2023). RW is more prevalent in work environments, It improves digital competencies and abilities and helps create services and goods that have more value (Āboliņa & Veselova, 2021). Recent years have seen a rise in

telework and remote work, which may provide organizational flexibility and individual liberty but can also exacerbate feelings of isolation and make it more difficult to maintain a work-life balance (Vartiainen, 2021). While working remotely has a good effect on one's emotional and social well-being, it may also cause social and professional isolation as well as perceived barriers to career progress (M. Charalampous et al., 2018). Employee performance and well-being are affected in several ways by remote working, which also improves workers' physical and mental health and how they view their employers and themselves (Ferrara et al., 2022).

Productivity is a term that emphasizes the effective use of scarce economic resources, but its definition and wealth distribution are still up for debate, making it challenging to apply to issues and disagreements involving the economy (Coates, 1980). The sum of time spent absent from work due to illness and time spent at work with lower productivity (presenteeism) equals worker productivity (Beaton et al., 2009). Employee productivity is a gauge of efficacy and efficiency that gives a business a competitive advantage and advantages like increased work and customer satisfaction (Kumar, 2013). Enhanced worker output is crucial for a company to maintain long-term profitability (Singh et al., 2022). There is a favorable correlation between increased employee well-being and increased productivity, customer loyalty, and profitability at the business unit level (Christian Krekel et al., 2019). Higher average human capital is

attracted to and retained by better-managed companies, which raises worker productivity (Bender et al., 2016).

Working remotely during a pandemic enhanced engagement and productivity (= 0.120; p 0.01), but decreased work-life balance and job satisfaction (Sandoval-Reyes et al., 2021). Employee performance is impacted by remote work, which is determined by things like performance levels and the caliber of the task (Ogórek & Strycharska, 2023). Employee productivity is impacted by remote work, and it presents firms with hurdles in adjusting to the complicated needs of a dispersed yet connected workforce (Chen & Lorenzo, 2023). Employee performance in remote work arrangements is improved by organizational trust and job flexibility, which balance out the demands of ICT and work-life conflicts (Keeler et al., 2023). Increased self-efficacy in remote work has a favorable impact on workers' productivity, job happiness, and capacity to function in virtual teams (Staples et al., 1999).

Ai Tools

Expert systems are the most well-known example of a type of computer systems that heavily utilizes a computer's capacity to interpret both numbers and symbols. Artificial intelligence is the term used to describe the research that goes into creating these systems (Simmons & Chappell, 1988). Artificial intelligence (AI) has developed from a simple idea to a sophisticated, adaptable system that can accomplish objectives and carry out activities (Haenlein &

Kaplan, 2019). Artificial intelligence (AI) gives computers the ability to carry out activities that humans can, such as emulating cognitive functions and addressing complicated issues in a perceptive and flexible way (Zhang et al., 2021).

Artificial intelligence (AI) technologies in companies provide a more comprehensive, intuitive way to handling ambiguity and equivocality while enhancing human cognition in coping with complexity (Jarrahi, 2018). Decision-makers in organizations must assess AI technologies in light of growing assertions that they perform better than human specialists (Lebovitz et al., 2021). The development of AI tools and their potential advantages for businesses are at an unprecedented rate (Venkatesh, 2022). Organizations may use AI tools for a variety of activities, which opens up new possibilities for integrating humans and machines. However, because AI is replacing more employment, it also poses a danger to human jobs (Huang & Rust, 2018).

Employees that operate remotely generate digital exhaust, which is utilized to transform them into data representations. Artificial intelligence then utilizes such representations to forecast and influence employee behavior (P. Leonardi, 2020). In order to accommodate remote practical work in distance learning, this study provides an intelligent electronic platform that uses artificial intelligence techniques. This platform benefits both students and professors by

assuring mobility, preventing congestion, and preserving a healthy environment within the faculty (Gourari et al., 2021).

Although AI-based performance feedback might increase worker productivity, its disclosure may have a detrimental influence on it; nevertheless, this effect may be mitigated by longer employee retention (Tong et al., 2021). By encouraging productivity, better communication, and a collaborative work atmosphere, AI may increase employee engagement (Mittal et al., 2023). Artificial intelligence (AI) in the workplace dramatically boosts worker productivity by streamlining repetitive processes, offering tailored recommendations, and improving decision-making skills (G et al., 2023). AI-based algorithms, like Ranker, can increase worker productivity and engagement by fostering a collaborative work environment and increasing the accuracy of performance evaluations (Fitri et al., 2023). Workforce productivity is positively impacted by AI adoption thanks to the mediating effects of organizational adaptation and AI training (Nurlia et al., 2023).

Methodology

This Study use thematic analysis approach. Thematic synthesis is an open approach to incorporating the results of qualitative research into systematic reviews, leading to more successful interventions and upholding the fundamentals of systematic reviewing (Thomas & Harden, 2008).

Interview is semi structured conduct of twelve digital marketing experts or professional they employee in digital marketing companies. Interview based on these following questions

- Experiences of participants in RW (advantages, difficulties, and effects on output).

- use of AI technologies (particular tools, adoption rate, and satisfaction) in their job in digital marketing.

- views of how AI tools affect EP in distant work settings.

Thematic analysis conduct following stages

1. **familiarizing.**

Data transcription (if required), data reading and rereading, and initial concept notation (Braun & Clarke, 2006).

2. **Generating initial codes**

Methodical coding of the data's noteworthy characteristics throughout the whole data collection, gathering information pertinent to each code (Braun & Clarke, 2006).

3. **Searching themes**

Assembling all information pertinent to each prospective theme and compiling codes into possible themes (Braun & Clarke, 2006).

4. **Reviewing themes**

Creating a thematic "map" of the analysis by confirming how the topics relate to the coded extracts (Level 1) and the whole data set (Level 2) (Braun & Clarke, 2006).

5.   Defining and naming themes

Continuous examination to improve the details of every theme and the narrative it conveys as a whole, producing precise names and definitions for every theme (Braun & Clarke, 2006).

6.   Producing the report (Braun & Clarke, 2006).

7.   The last chance for examination. Choosing vivid, captivating extract examples, doing a thorough analysis of a chosen extract, connecting the analysis to the literature and research topic, and creating an academic report on the analysis (Braun & Clarke, 2006).

For data credibility the following measure will be taken.

• Member checking: To ensure the correctness of their comments, respondents were given transcripts of their talks.

• Triangulation: To assist the analysis and highlight potential areas of convergence or divergence, interview data was compared to previously published studies on remote work and AI in digital marketing.

• Researcher reflexivity: The scientists were conscious that personal preconceptions may impact the project's data preparation, collection, and assessment. Transparency is useful since it ensures the study's validity.

Finding and Results

Thematic analysis

	Sub theme	Detail
Demographic	Location	Islamabad, Rawalpindi, Karachi, Peshawar.
	Job title	Digital Marketing Manager, ASP.net Developer, SEO Expert, Web Developer, Director Strategy & Creative, Digital Marketing Manager, Ads Maker, Content Creator, Co-founder, Founder & CEO
	Year of Experience	More than 2years or less than 2years
RW experience	Benefits	Improved work-life balance, increased flexibility, reduced commuting time, fewer distractions, greater autonomy, improved focus.
	Challenges	Feeling isolated, distractions at home, health problems, internet issues, hurdles in collaboration and communication.
Productivity, Satisfaction	Productivity	Participant fell more productive when they RW.
	Satisfaction	The vast majority of participants trend towards contentment, with responses ranging from indifferent to extremely delighted with the remote work arrangement.
Impact on Deadlines		The majority of participants trend towards contentment, with responses ranging from indifferent to extremely delighted with the remote work arrangement.

AI tools usage.	Use.	Use chatbots, content creation or optimization tools
	Positive.	Reducing time and enhancing collaboration.
	Negative.	Dependency on technology, Bad impact on critical thinking or lack of human touch.
Overall Satisfaction.		Participant generally have positive view of RW or AI tools Usage for EP.

Source by Author.

Method Of Calculation

The method of calculation used frequency and percentage. Frequency represents the count of participant and the percentage show each participant proportion. Divide the frequency with each category with 12 participants and multiply by 100.

Table No 1

Remote Work Experience

Category	Frequency	Percentage
2 years	6	50%
3 years	3	25%
6 months - 1 year	2	16.67%
Less than 2 years	1	8.33%

Source by Author

Table no 2

Remote work Frequency

Category	Frequency	Percentage
Daily	12	100%

Source by Author

Show in table no 2 all the participant has work daily at remote.

Table no 3

Challenges of RW

Category	Frequency	Percentage
Distractions at home	6	50%
Feeling isolated	5	41.67%
Health problems	5	41.67%
Internet problems	5	41.67%
Hurdles with collaboration	4	33.33%

Source by Author

Table No 4

Satisfaction with Remote Work Setup

Category	Frequency	Percentage
Somewhat satisfied	6	50%
Neutral	3	25%
Very satisfied	2	16.67%

Source by Author

Show the table no 4, 50% of participant are somewhat satisfied with RW, 25% are neutral and 16.67% are very satisfied

Table no 5

Productivity While Working Remotely

Category	Frequency	Percentage
Less productive	2	16.67%
More productive	6	50%
No difference	3	25%

Source by Author

Show the table no 5 16.67% participant are less productive while RW, 50%are more productive and 25% fell no difference.

Table No 6

AI tools Usage while working remotely

Category	Frequency	Percentage
Yes	9	75%
No	3	25%

Source by Author

Show the table 75 % of participant are use AI tools while RW OR 25% not use.

Table no 7

Satisfaction with AI tools

Theme	Frequency	Percentage
Very satisfied	5	41.67%
Moderately satisfied	3	25%
Neutral	4	33.33%

Source by author

Show the table no 7, 41.67% are very satisfied using AI tools, 25 % are moderate satisfied, and 33% are neutral.

Table no 8

Impact on Productivity using Ai Tools While RW

Category	Frequency	Percentage
Positive impact	9	75%
Negative impact	6	50%

Source by Author

Show the table no 8 , 75% are positive impact on productivity using Ai tools or 50% are negative impact.

Result

The data collecting from the digital marketing experts or professionals they employee digital marketing agencies and work remotely. in Rawalpindi, Islamabad, Karachi or Peshawar with different level of RW experience. RW advantages included develop productivity or WLB. The other hand isolation, home distraction or internet problem are the biggest challenge while working remotely. The majority of participant feel productive or satisfied while RW. The use of AI tools (Chatbots, Content optimization tools) noticing a positive impact on efficacy and collaboration. In the end, respondents' positive opinions of RW and AI tools for EP and JS demonstrate that these technologies have possibilities in Pakistan's digital marketing industry.

Discussion

The study demonstrates the effectiveness of remote work and artificial intelligence tools in boosting employee productivity and satisfaction in Pakistan digital marketing companies. The advantages of RW, such as work-life balance and better time management, have also been previously recognized (Rehman et al., 2023). While working from home is not new and proven to be more time consuming , the challenges of isolation and constant home-based distractions require employer-based strategies (Adisa et al., 2021). Meanwhile, as this study's results reveal, the participants build a positive attitude towards AI acquisition, which has been observed for its time-saving and teamwork-facilitating capabilities to enhance human abilities (Haenlein & Kaplan, 2019). However, the expressed reservations about the potential damage to focused consideration due to technological dependency imply the possible need for balanced integration.

Implication.

This study suggests different implication of digital marketing agencies of Pakistan. Firstly, RW or AI tools increased EP and satisfaction. Other Side Still, it is essential that businesses use efficient methods to tackles issues like isolation and diversions brought on by RW. And an equitable approach to integrating AI tools must be taken for avoiding any possible adverse impacts on focused thinking about.

Conclusion.

To conclude, the present study demonstrates the positive effects of RW and AI tools on employee productivity and job satisfaction in the digital marketing companies of Pakistan. The first contributes to a more balanced work-life scheduling and increased working time efficiency, and the second improves teamwork collaboration and operational efficiency. Companies are suggested to adopted RW policies and assist remote workers to receive full-scale benefits. As for the latter, companies should carefully consider AI tool integration to avoid their replacement of human judgment and imagination. There also is a need for further studies on the long-term effect of RW and AI tools to be conducted. The comparatively small sample size and the use of interviews that are semi-structured, which could fail to adequately represent a broad range of experiences, are two of the drawbacks of the research.

Future Study.

To further corroborate the results, future studies may examine quantitative techniques and work with a bigger, more varied the number of people.

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