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RESEARCH PAPER

The Enduring Role of Grit in Driving Learning Goal Orientation

[1]Nasreen Gul, [2]Dilawar Khan Durrani and [3]Muhammad Masood Babar

1. M.Phil. Scholar, Department of Commerce, University of Balochistan, Quetta, Balochistan, Pakistan
2. Associate Professor, National University of Sciences & Technology (NUST), Islamabad, Pakistan
3. Lecturer, Department of Commerce, University of Balochistan, Quetta, Balochistan, Pakistan

Corresponding Author dilawar.durrani@gmail.com

ABSTRACT

This study investigates the relationship between grit and learning goal orientation, and examines whether age moderates this relationship among employees in the private banking sector of Quetta. Grit, defined as perseverance and passion for long-term goals, is a key predictor of motivation and learning behavior. Understanding its connection with learning goal orientation helps explain employees' adaptability and performance in dynamic service industries such as banking, where continuous learning is critical. Data were collected through a structured questionnaire from a convenience sample of 388 bank employees in Quetta. Validated scales measured grit and learning goal orientation. Correlation analysis, ordinary least squares regression, and hierarchical moderation models were applied. Findings revealed a significant positive relationship between grit and learning goal orientation. However, age showed no significant association with learning goal orientation and did not moderate the grit–learning goal orientation relationship. Thus, both younger and older employees displayed similar patterns. Banks should focus on fostering grit through training and mentoring programs to enhance employee learning orientation regardless of age. Future studies may explore additional moderators such as organizational culture and job tenure.

Keywords: Grit, Learning Goal Orientation, Age

Introduction

Understanding what motivates employees to pursue continuous learning and personal development is essential for sustaining long-term organizational performance. In the context of modern workplaces, two psychological constructs have gained prominence for their influence on learning and development behaviors. The first is grit, defined as the perseverance of effort and consistency of interests over time toward long-term objectives. This construct was introduced by Duckworth et al. (2007), who demonstrated that grit predicts achievement above and beyond cognitive ability and broad personality traits. The second is learning goal orientation, a disposition reflecting individuals' desire to develop competence by acquiring new skills and treating challenges or failures as opportunities to improve. Button et al. (1996) validated this construct for workplace settings.

Employees in Pakistan's private banking sector work in a volatile environment. They face constant regulatory changes, fast-paced technological developments, and shifting customer expectations. In such a dynamic context, employees who demonstrate sustained effort and a desire to master new competencies are invaluable. Theoretically, grit is expected to support learning goal orientation, as enduring effort and unwavering interest facilitate the long-term pursuit of mastery (Sadoughi & Eskandari, 2024). However, one potential moderating factor in this relationship is age. Research in lifespan development and work motivation suggests that younger employees tend to emphasize learning and career growth,

whereas older employees may prioritize job stability and the efficient application of established skills (Malik, 2025). This divergence raises questions about whether age alters either the level of learning goal orientation or the strength of its relationship with grit.

Despite theoretical plausibility, empirical investigations linking grit with learning goal orientation remains limited, particularly in service-oriented sectors such as banking. Furthermore, the moderating role of age in this relationship is underexplored, especially in emerging economies like Pakistan. This gap is significant because understanding these dynamics can help organizations tailor development initiatives to employee characteristics and foster a more learning-oriented workforce.

The present study addresses this gap by investigating the interplay between grit, learning goal orientation, and age among employees in the private banking sector of Quetta. Guided by a positivist research philosophy, the study employs a quantitative, cross-sectional design using validated psychometric instruments. Specifically, it (1) examines the direct relationship between grit and learning goal orientation, (2) evaluates whether age independently affects learning goal orientation, and (3) tests whether age moderates the grit–learning goal orientation relationship. The study contributes to theory and practice by offering contextually relevant evidence and actionable recommendations for enhancing employee development in high-demand service sectors.

Literature Review

Grit

Since its introduction by Duckworth et al. (2007), grit, defined as perseverance and passion for long-term goals, has remained of central interest. However, recent integrative reviews and empirical studies have underscored its promise and limitations. Notably, Datu (2021) critically reviewed the "science of grit," revealing unresolved conceptual flaws regarding the two-factor structure of grit and calling for refined models that better capture its predictive mechanisms and domain-specific validity. They argued that the perseverance of effort component consistently demonstrates stronger predictive validity relative to consistency of interests, particularly across performance domains and well-being outcomes. Therefore, they recommend conceptual refinement to preserve grit's utility in organizational and educational research.

Moreover, in workplace contexts, grit has been shown to foster organizational performance through transformational leadership and supportive climates. Lee (2022) explored this dynamic, finding that gritty employees in supportive environments were more resilient and effective during organizational change. This emphasizes that grit's impact is contingent upon contextual resource structures.

These studies suggest that although grit remains relevant, its theoretical basis requires nuance. It is no longer adequate to treat grit as a unitary trait. Rather, researchers must specify which dimension of perseverance or passion matters for which outcomes and under what conditions. This complexity is especially pertinent when considering age-related differences in how grit manifests and motivates behavior.

Learning Goal Orientation

Learning (or mastery) goal orientation, where individuals prioritize growth and competence development over performance validation, continues to be significant in educational and organizational settings. While foundational studies date back decades, recent research reiterates its relevance and expands its operationalization.

The OECD (2024) emphasizes mastery goals as promoting long-term competence development in dynamic tasks, distinguishing them from performance goals that center on external validation. This reconceptualization reinforces the view that learning orientation catalyzes intrinsic motivation, deep cognitive engagement, and adaptiveness.

Importantly, goal orientation correlates differentially with learning behaviors. For instance, individuals with mastery orientations are more likely to seek feedback constructively, whereas those with performance-avoidant orientations may withdraw in the face of difficulty. Gielnik et al. (2020) meta-analytically confirmed that mastery orientation is more strongly linked to self-regulatory processes such as metacognition and feedback-seeking than performance orientations. This distinction is critical for understanding how learning-focused employees persist through challenges.

Critically, though, goal orientation does not universally guarantee enhanced performance. Contextual factors, such as evaluation pressure or rigid performance metrics, can constrain the benefits of a learning orientation (Munawwar et al., 2020). Consequently, the adaptability of learning orientation remains contingent upon organizational culture and task design.

Grit and Learning Goal Orientation

Theoretically, grit and learning goal orientation align coherently. Grit embodies sustained effort through adversity, while learning orientation frames setbacks as opportunities for growth. Therefore, perseverance logically undergirds mastery behaviors.

Empirical work, however, remains limited and often domain specific. For instance, Vergara (2020) investigated how grit, self-efficacy, and goal orientation correlate in academic settings and found positive associations, with grit enhancing mastery-oriented goal adoption but this was in university students, not workplace adults. Similarly, Martin et al. (2022) reported that grit correlates positively with self-regulated learning (a hallmark of learning orientation) among engineering students, again suggesting that grit supports learning behaviors.

Despite these promising links, virtually no published research examines the grit–learning goal orientation relationship in organizational contexts. This gap is both perplexing and critical, given that adult learning in workplaces operates under different motivational and structural constraints than in academic contexts (Siddiqui et al., 2021). Therefore, to extend understanding, it is essential to explore this relationship in applied settings and consider moderating factors like age.

Age and Learning Goal Orientation

Recent findings on age and learning motivation reaffirm classic developmental theories. The Wikipedia summary of goal orientation literature indicates that younger individuals are more likely to adopt mastery orientation and that academic motivation generally declines over time, reflecting shifts towards performance or avoidance orientations during adulthood. These age trends align with socioemotional selectivity theory and adult motivation frameworks, which propose that ageing individuals prioritize emotionally meaningful and familiar goals over exploration (Ullah et al., 2023). This shift can manifest as reduced learning goal orientation among older employees. However, few studies since 2020 have operationalized this dynamic within workplace learning, suggesting that future research should explicitly test how learning orientation trajectories vary across age and career stage.

Age as a Moderator of the Grit & Learning Orientation Link

Given the conceptual alignment between grit and learning orientation, age likely influences how grit translates into learning motivation. For younger employees, who face longer trajectories for advancement, grit may channel into skill development and exploration. For older employees, grit may be directed toward maintenance, optimization, or mentoring, rather than skill acquisition.

Supporting this, Gonlepa et al. (2023) showed that grit enhances creativity in university staff by fostering work engagement, with effects contingent on person–organisation fit and feedback, suggesting that grit's impact is conditional, not uniform. Though not age-focused, this work implies that grit interacts with other variables to shape motivational outcomes.

Additionally, Postigo (2024) suggested that different "domain-specific grit" profiles emerge in work contexts, pointing to possible variations in how grit functions across roles and life stages. If we link life stage to domain-specific grit, it becomes plausible that older workers deploy grit differently, reaffirming the necessity of moderation analysis.

Despite these insights, no recent study explicitly tests age as a moderator between grit and learning goal orientation. This absence underscores the novelty and importance of examining age-sensitive motivational dynamics in organisational learning research.

Hypotheses

H1 Grit is positively related to learning goal orientation.
H2 Age is negatively related to learning goal orientation.
H3 Age moderates the relationship between grit and learning goal orientation such that the relationship is stronger for younger employees.

Conceptual framework

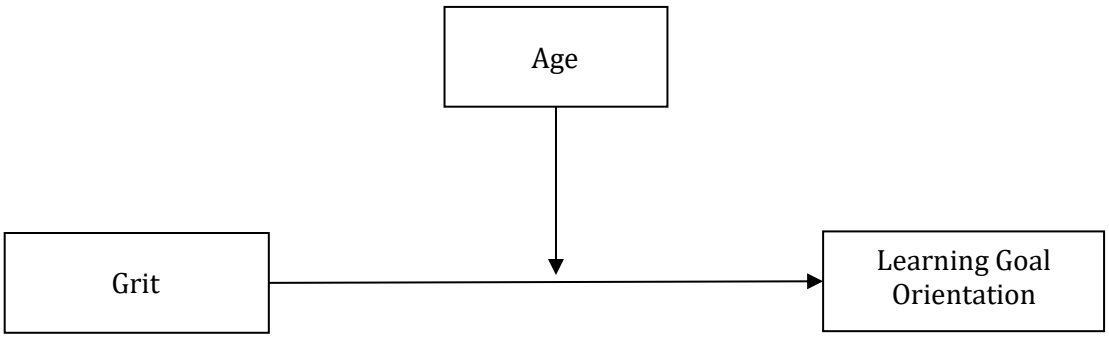

Fig 1: Conceptual Framework

The conceptual model is presented in figure 1. Showing Grit as the predictor, Learning goal orientation as the dependent variable and Age as the expected moderating variable.

Material and Methods

Research design

The present study employed quantitative, causal research design with a cross-sectional survey strategy. This design is appropriate because it allows the estimation of associations among dispositional constructs at a single point in time and provides a suitable

basis for testing moderation effects using observed variables (Remler & Van Ryzin, 2021). Quantitative methods are particularly relevant when the objective is to test theoretically derived hypotheses and to determine the strength and direction of relationships among variables such as grit, learning goal orientation (LGO), and age. A cross-sectional approach enabled the collection of data from a sufficiently large number of respondents within the banking sector, providing the breadth of information needed to make general inferences about the population under study (Oyake et al., 2020). Furthermore, causal modelling within a survey design helped to examine not only direct effects but also interactive relationships, thereby aligning to test the moderating role of age.

Population and setting

The research population included the employees working in private banking sector of Quetta. Employees in this sector are required to continuously update their knowledge and skills due to technological changes, regulatory pressures, and the competitive environment. The target population therefore comprised bank employees working in operational and supervisory roles, as these positions involve both frontline service delivery and managerial oversight where continuous learning and adaptation are critical (Kang et al., 2020). Limiting the focus to this group ensured that the study examined individuals whose roles explicitly demand perseverance and learning orientation, thereby strengthening the practical implications of the findings for organizational practice.

Sampling and sample size

The study used a convenience sampling approach to recruit participants. Convenience sampling refers to the practice of selecting respondents who are easily accessible to the researcher rather than drawing randomly from the entire population (Jin & Ji, 2021). It was considered necessary in this research because a complete sampling frame of all private banking employees in Quetta was not available, and gaining access to all potential respondents was impractical. Convenience sampling was, therefore, justified as it allowed the researcher to collect data efficiently while still capturing variation across multiple banks.

The minimum sample size was determined using the standard formula for estimating proportions with a 95% confidence level and a 5% margin of error. Sample size calculated by the formula indicated that for the unknown population, a sample size of at least 385 would be appropriate.

To account for possible non-responses and incomplete questionnaires, the researchers distributed questionnaires to 480 respondents, out of which 402 responded, 14 questionnaires were discarded due to incomplete information or similar responses to all the items. The final sample size consisted of 388 participants. This sample size was sufficient to conduct regression analysis, including moderation testing, with adequate statistical power (Ghanad, 2023).

Measures

The constructs were measured using validated scales to ensure reliability and construct validity. Grit was assessed with the twelve-item Grit Scale (Duckworth et al., 2007). This instrument captures the two facets of grit, namely perseverance of effort and consistency of interests. The scale has demonstrated good psychometric properties in previous research, with Cronbach's alpha values typically around .80, and has been validated in both educational and occupational contexts. Respondents were asked to indicate their agreement with each item using a five-point Likert scale ranging from strongly disagree to strongly agree.

Learning goal orientation was measured using the ten-item dispositional scale developed by Button et al. (1996). The items measured preferences for challenging tasks, persistence after failure, and the intrinsic value of learning. Responses were collected on the same five-point Likert scale.

Age was self-reported in completed years. In addition, demographic information such as gender, tenure, and educational background was collected for descriptive purposes and to check for robustness in the analysis. However, consistent with recommendations in organizational research (Oyake et al., 2020), these variables were not included as controls because their inclusion did not materially change the results or improved model fit.

Results and Discussion

Demographics

Data was collected from a diverse set of respondents. The demographics analysis showed that most of the respondents were Male (50.5%) and Female population employees comprised 45.5%. Moreover, majority of the respondents were Single (53.9%) and the married population of employees comprised of 45.9%. The demographics further showed that 50.3% of employees had 1 to 5 years' experience in their current organization, 25.3% had experience of 6-10 years, only a few had 11-15 ((9.5%) years and above 16 years of experience (14.9%)

Table 1
Results from Descriptive Statistics, Reliability and Correlation Analysis:

	Grit	Learning Goal Orientation	Age
Grit	**.89**		
Learning Goal Orientation	455**	***.91***	
Age	-.002	.045	-
Mean	3.271	4.136	29.45
Standard Deviation	0.794	0.724	5.99

Note: *p<.05, **p<.01

Table 1 showed the results from descriptive analysis, reliability and correlation analysis. The Cronbach's alpha reliability measure for each scale is given diagonally in the top row of each column for the corresponding variable. The results showed a that Cronbach's Alpha for the Grit scale was .89 which was fairy reliable. Similarly, the Cronbach's Alpha for Learning Goal Orientation was highly reliable at .91. The means and standard deviations for Grit, Learning Goal Orientation, and age were 3.271 (.79), 4.1 (.72), and 29.45 (5.99), respectively. As expected, it was found that the correlation between grit and learning goal orientation was positive (r=.455, p<.01). However, no significant correlation was found between age and grit or age and learning goal orientation.

Regression Analysis

A Hierarchical Regression Analysis was employed to examine both the direct effects and the potential moderating influences among the study variables. Prior to generating the interaction terms, the independent variable and the moderating variable were mean-centered to minimize issues of multicollinearity and to provide a more accurate interpretation of the interaction effects. This analytical approach allowed for a step-by-step assessment, beginning with the main effects model and subsequently introducing the interaction terms to evaluate whether the moderating variable significantly altered the strength or direction of the relationship between the independent and dependent variables. The results derived from the hierarchical regression procedure are summarized as follows:

Table 2
Relationship between Grit and Leaning Goal Orientation (Age as moderator)

Variable	Psychological Contract Violation					
	Model 1		Model 2		Model 3	
	Effect	Standard Error	Effect	Standard Error	Effect	Standard Error
Independent Variable						
Grit	.415**	.041	.415**	.041	.4127**	.041
Moderating Variable						
Age			.0056	.005	.0056	.005
Interaction Effects						
Grit x Age					.0092	.007
R^2	.207		.209		.2127	
F	100.63		50.86		34.59**	

Note: * = p < 0.05, ** = p < 0.01

The outcomes of the hierarchical regression analysis conducted to evaluate the proposed hypotheses are presented in Table 2. Consistent with theoretical expectations and prior empirical evidence, the results revealed that Grit exerted a significant and positive influence on Learning Goal Orientation ($\beta = 0.415$, $p < .01$). This finding suggests that individuals who demonstrate higher levels of perseverance and passion for long-term goals are more likely to adopt a learning-oriented mindset, thereby validating Hypothesis 1. The acceptance of this hypothesis underscores the argument that grit not only sustains effort over time but also fosters adaptive goal-setting behaviors conducive to continuous learning.

In contrast, the analysis indicated that Age did not have a statistically significant relationship with Learning Goal Orientation. This implies that differences in age alone do not necessarily translate into variations in individuals' inclination toward learning goals. Consequently, Hypothesis 2 was not supported. A possible explanation is that motivational orientations such as learning goal orientation are more strongly influenced by psychological traits (e.g., grit) rather than demographic characteristics like age.

Furthermore, when examining the potential moderating role of Age in the relationship between Grit and Learning Goal Orientation, the results again demonstrated no significant interaction effect. This outcome indicates that the strength of the positive relationship between grit and learning goal orientation remains consistent across different age groups. Therefore, Hypothesis 3 was also not supported. This finding suggests that grit's role in shaping learning goal orientation is relatively universal and robust, operating independently of age-related differences.

Taken together, these results provide strong support for the central role of grit in predicting learning goal orientation, while highlighting that age, whether directly or in interaction with grit, does not significantly shape this motivational construct.

Discussion

The study examined the links between grit, learning goal orientation, and age among private bank employees in Quetta. The findings confirmed H1, which showed a positive and statistically significant relationship with learning goal orientation. Employees who scored higher on perseverance and sustained interest reported stronger preferences for mastery, challenge, and feedback. This pattern is coherent with self-regulatory accounts in which sustained effort supports goal setting, reflective monitoring, and adaptive strategy use (Datu, 2021). It also aligns with capability development in banking, where complex tasks, compliance demands, and product changes reward deliberate practice and persistence. In this context, grit operates as a motivational resource that sustains attention to improvement and reduces avoidance of complex tasks (Munawwar et al., 2020). By contrast, H2 and H3 were rejected, as age did not exhibit a significant association with learning goal orientation,

and it did not moderate the grit–learning goal orientation link. The non-significant main effect suggests that older and younger employees report similar mastery orientations once individual differences in grit are considered. The absence of moderation indicates that the positive association between grit and learning goal orientation is comparable in size for both groups. A plausible explanation is the diffusion of digital environments that have reduced age-based barriers to learning. Routine use of social media, mobile applications, and internal knowledge platforms exposes all employees to timely information, communities of practice, and peer exemplars (Gielnik et al., 2020). These affordances can normalize feedback seeking and micro-learning across ages. In addition, banks employ standardized training, certification cycles, and learning management systems that structure access to content and embed mastery cues in role requirements. Such institutional features dampen life-stage differences and shift variation toward person-level motivational traits such as grit.

The task and climate characteristics in retail and corporate banking constrain the motivational relevance of age. Clear procedures, defined risk thresholds, and auditable metrics promote uniform expectations for improvement. In such settings, discretionary learning behavior depends more on employee self-regulation than on chronological age. The contemporary learning media rely on short, interactive formats that reduce cognitive load and allow self-paced progression (Postigo, 2024). These formats can be equally usable for different age groups and may help mitigate any age-related decline in exploration motives. The implications for talent management are direct. Selection and development should prioritize behaviors that express grit in daily work. Banks can build learning goal orientation by training employees in goal setting, metacognitive planning, and constructive feedback seeking, and by recognizing persistence that targets skill acquisition rather than mere output volume (Gielnik et al., 2020). Line managers should craft tasks with graded challenge, timely coaching, and visible progress markers to convert sustained effort into mastery gains. Programs should be age-inclusive rather than age-differentiated. Younger staff can be supported through stretch assignments and mentoring that channel energy toward deliberate practice. Older staff can be engaged through roles that combine optimization, knowledge transfer, and technology enablement, without assuming reduced motivation to learn (Postigo, 2024). Overall, the findings caution against age-based assumptions and support investment in grit-relevant competencies to strengthen learning orientation across the workforce.

Conclusion

This study investigated how grit and age influence learning goal orientation among Quetta-based commercial bank workers. The findings show that grit specifically, tenacity and continuous interest play an important role in molding individuals' willingness to pursue mastery, seek feedback, and accept difficulties. In contrast, age had no significant impact, either directly or as a moderator, demonstrating that learning orientation in the banking sector is more strongly related to individual attributes than to demographic determinants. These findings provide two significant contributions. First, they emphasize grit as a basic competence in contexts defined by constant change, such as the banking business. Second, they address prevalent misconceptions regarding age and learning by demonstrating that digital tools, systematic training, and consistent performance goals may have minimized generational differences in learning behavior.

In practice, the findings suggest that businesses should focus on identifying and cultivating grit-related behaviors rather than segmenting learning methodologies based on age. This includes training programs that teach self-regulation, setting objectives, and seeking feedback skills, as well as career plans that encourage perseverance and growth. Inclusive learning environments, which are supported by technology and coaching, can help people advance in their careers at all stages.

Recommendations

Based on the study's findings, it is recommended that organizations should focus on cultivating grit among employees to enhance their learning motivation. This can be achieved through targeted training programs, mentoring, and coaching initiatives that build resilience, long-term goal commitment, and perseverance. Since age did not moderate the relationship between grit and learning goal orientation, learning initiatives should be inclusive, designed to engage employees across all age groups. Additionally, grit can be integrated into HR practices by incorporating it into hiring criteria and performance evaluations to identify individuals likely to engage in continuous learning. To further strengthen learning behavior, organizations should foster a work culture that values persistence, improvement, and growth over time.

This study has its limitations. Its narrow focus on a single city and sector restricts how broadly the findings may be applied. Future studies might expand on this work by examining different industries, geographical areas, or cultural norms, as well as other variables like job position, leadership environment, or corporate learning culture. Additionally, longitudinal designs may shed light on how learning orientation and grit change over time. Future studies may also benefit from exploring other influencing factors such as organizational culture or job tenure to better support employee development. All things considered, this study emphasizes the value of grit as a catalyst for adaptive learning in the workplace and promotes a change from age-based presumptions to more individualized, trait-driven methods of developing talent.

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