

Motivation Beyond Wages: Profiling Employee Motivation Through Self-Determination Theory in a Collectivist Culture

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Abstract:

Understanding what motivates employees beyond money is crucial, especially in collectivist cultures like Ghana, where social obligations shape personal goals. Using Self-Determination Theory (SDT), this study explored motivational profiles among employees in a non-metallic mineral processing company. A descriptive survey design was adopted, with data collected from 105 employees via questionnaires. Latent profile analysis revealed three distinct motivational profiles: (1) Highly self-determined (low amotivation, progressive increase to high intrinsic motivation); (2) Socially driven (high external regulation alongside strong identified/integrated regulation); and (3) Moderately self-determined (low amotivation/external regulation, high identified/integrated regulation). Study findings highlight that while intrinsic motivation is seen as ideal, identified and integrated regulation can effectively sustain industrial performance in a collectivist culture. The concurrence of external and internal motivations in Profile 2

challenges binary views of motivation, highlighting the importance of cultural influences in collectivist workplaces. The study advises management to craft motivational strategies suited to cultural contexts. Organisations should encourage autonomy-supportive leadership, recognition, and feedback to boost competence and belonging, while avoiding over-reliance on controlled motivation that may cause burnout. The study concludes that successful motivation in industrial sectors depends on a balanced, culturally aware, and psychologically nurturing approach that encourages sustainable engagement and enhances worker well-being.

Keywords:

Motivational Profiles, Self-Determination Theory, Latent Profile, Collectivist Culture, Ghana

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Introduction

In today's uncertain business environment, many organisations recognise that long-term success depends not only on quality products and advanced technology but also on a dedicated workforce (Oladipupo, 2016). This insight has positioned employees as vital strategic assets. Engaged and committed employees often demonstrate ethical, constructive, and discretionary behaviours that support strategic objectives and other key organisational outcomes (Kwofie et al., 2025). Human behaviour is typically understood through physiological, psychological, and sociological needs. Anything that satisfies these needs and is valued by an individual can be considered a resource (Hobfoll et al., 2018). The Conservation of Resources (COR) theory categorises critical resources into four types: situational, objective, personal, and energy-related (Hobfoll, 2001). It posits that people are driven to acquire, retain, and safeguard these resources (Hobfoll et al., 2018). Protecting these resources promotes mental and physical well-being, leading to increased happiness. Achieving optimal well-being is more likely when individuals are motivated and possess personal resources like self-esteem and resilience (Hobfoll, 2001), which foster behaviours that improve the work environment (Wright & Hobfoll, 2004).

Motivation, though difficult to quantify, is crucial in shaping human behaviour by affecting how people choose, how strongly they act, and how long they persist in their actions (Diamantidis & Chatzoglou, 2019; Wilde & Urhahne, 2008). It is deeply personal (Deci & Ryan, 1980, 2000; Maslow, 1943; McClelland, 1965; Plant & Ryan, 1985; Thomas & Velthouse, 1990), meaning each person has a unique motivational profile. When motivated, a person feels compelled to perform a task (Ahmed et al., 2023; Ryan & Deci, 2000a). Conversely, someone who lacks the desire or drive is considered unmotivated, while someone energised or compelled to act is considered motivated. This prompts key questions: What inspires an individual to undertake a specific task, and what fuels that motivation? Several studies have examined how work motivation relates to various organisational factors, gaining more attention from researchers (Normianti, Aslamiah, & Suhaimi, 2019; Okeke-Uzodike & Anusi, 2025). In European settings, research indicates a positive link between employee motivation and performance (Ahmed et al., 2023; Diamantidis & Chatzoglou, 2019). These findings also show that work motivation is shaped by factors such as autonomy to try new ideas, proper delegation of responsibilities, job security, and intrinsic aspects related to the nature of the work itself (Deci, Olafsen, & Ryan, 2017; Kalia & Bhardwaj, 2019; Normianti et al., 2019; Reyaz, 2024).

Work motivation is a crucial factor influencing employee outcomes across various cultural contexts, including both individualist and collectivist societies. In individualist cultures, where individuals see themselves as autonomous and focus on personal goals, self-expression, and individual rights over group interests, motivating employees to boost productivity, engagement, and alignment with organisational objectives becomes essential (Locke & Latham, 2002). This emphasis on personal

achievement and autonomy highlights the importance of intrinsic factors such as meaningful work, opportunities for self-growth, and supportive environments, which significantly sustain motivation (Reeve, 2018). Hofstede (2001) describes individualism as a preference for a loosely connected social system, with individuals prioritising self-care and immediate family. Countries like the United States, Australia, the UK, and Germany are typically seen as highly individualistic (Oyserman, Coon, & Kemmelmier, 2002). In contrast, collectivist cultures emphasise interdependence, group harmony, loyalty, and shared responsibility as key motivators. Hofstede (2001) characterises collectivism as a tightly woven social fabric where group members expect mutual support in exchange for loyalty. Nations such as China, Japan, Malaysia, Indonesia, South Korea, India, several African countries, including Ghana, and many Latin American nations display strong collectivist traits.

The previous discussions indicate that the link between culture and motivation has traditionally been viewed as a simple dichotomy, where workers in individualist cultures are seen as driven mainly by intrinsic factors, and those in collectivist cultures by extrinsic factors. However, recent research challenges this simple division, showing a more nuanced and flexible motivational landscape. For instance, Lorincová et al. (2019) found that motivational factors like salary, workplace atmosphere, and good teamwork strongly motivate workers across Slovak enterprises. In South Africa, De Sousa Sabbagha et al. (2018) identified enjoyment and external rewards as key sources of motivation. Similarly, Oyeyinka et al. (2017) in Nigeria reported that job satisfaction and motivation are greatly influenced by participative decision-making and performance incentives. In Ghana, studies have associated low motivation with inadequate allowances, low pay, and limited career growth (Seniwoliba, 2013; Vulley, 2021). Additionally, in Indonesia, Lestari and Perdhana (2023) show that Generation Z employees value interpersonal relationships and a sense of belonging more than personal achievement. These empirical findings demonstrate that motivation is not strictly intrinsic or extrinsic by cultural type alone. Instead, it results from a complex interplay of financial, social, and psychological factors that go beyond simple cultural stereotypes.

Building on this evidence of motivational complexity, scholars have explored why cultural patterns do not always lead to uniform motivational outcomes. Cao (2009) observed that in Malaysia, similar to other fast-developing Asian economies like China and Japan, younger, wealthier, and urban populations tend to show lower levels of collectivism. Zeffane (2020) added that collectivist tendencies vary by gender, with women generally displaying stronger collectivism than men. Vignoles et al. (2016) highlighted that collectivism is multidimensional and context-dependent, with its expression differing across regions and social groups. These changes are closely related to organisational shifts emphasising collaboration, emotional intelligence, and shared success. In traditionally collectivist settings, global corporate practices increasingly support innovation, initiative, and creativity, values typically linked to individualist cultures (Hofstede, 2001). Additionally, younger generations in collectivist societies, influenced by digital

globalisation and changing social values, often navigate between communal duties and personal goals (Vignoles et al., 2016). Overall, these dynamics indicate that cultures are not solely individualist or collectivist but lie along a spectrum, especially in modern industrial settings.

Literature Review

Self-Determination Theory (SDT) and Motivational Profiles

Self-Determination Theory (SDT), developed by Deci and Ryan (1985; 2000), suggests that all human beings are naturally motivated to grow and improve when three basic psychological needs are met: autonomy (the need to make choices and feel in control), competence (the need to feel effective and capable), and relatedness (the need to feel connected and valued by others). When these needs are supported in the workplace, employees tend to be more self-motivated, committed, and satisfied with their jobs (Ahmed et al., 2023; Tóth-Király et al., 2021). According to SDT, motivation exists on a continuum, ranging from low-quality motivation (or no motivation) to high-quality motivation (intrinsic). SDT identifies six distinct types of motivation: amotivation, extrinsic motivation (externally regulated), extrinsic motivation (introjected regulation), extrinsic motivation (regulation through identification), extrinsic motivation (integrated regulation), and intrinsic motivation (Howard et al., 2016; Tóth-Király et al., 2021). The quality of motivation increases as people internalise the value of their actions (Deci & Ryan, 2000).

Amotivation, the lowest level of motivation, occurs when employees feel powerless or perceive no reason to exert effort, often because they believe their work has no value or rewards (Ryan & Deci, 2017). For example, an employee with no chance for promotion or training might go through the motions (Ahmed et al., 2023). External regulation means working only for rewards or to avoid punishment. A step higher is introjected regulation, in which employees act under internal pressures, such as guilt or pride. Although this is more internalised, it still lacks autonomy and does not support long-term satisfaction (Gagné & Deci, 2005). Identified regulation demonstrates a more profound commitment, where employees recognise the importance of their tasks, such as a safety officer working diligently because they believe in protecting others (Howard et al., 2016). Integrated regulation goes even further, as work aligns with one's values and identity, as in the case of an environmental officer passionate about sustainability (Gillet et al., 2018). These types are closer to intrinsic motivation and often lead to better results (Deci & Ryan, 2000). Intrinsic motivation, the highest form, happens when people work because the task is enjoyable or meaningful. In a mineral processing company, this might be a technician who enjoys solving technical problems (Deci & Ryan, 2000; Tóth-Király et al., 2021). Although not all jobs are inherently pleasurable, autonomy, skill use, and supportive relationships can boost intrinsic motivation (Diamantidis & Chatzoglou, 2019; Ryan, Olafsen & Deci, 2017). This continuum illustrates

that employee motivation hinges on how well external demands are internalised and aligned with personal values, rather than solely on intrinsic or extrinsic motivation. In collectivist or resource-constrained environments, employees often depend on introjected or identified regulation driven by social expectations, job insecurity, or limited career advancement. Although these motivations can enhance short-term performance, they may negatively affect long-term engagement and well-being if autonomy and opportunities for growth are restricted.

This study is particularly relevant in the context of Ghana's non-metallic mineral processing sector, which extracts and processes materials such as limestone, clay, salt, kaolin, sand, and gravel, key inputs for construction, manufacturing, and agriculture. These companies play a significant role in national development (Ahmed et al., 2023). However, employees in this sector often perform physically demanding, repetitive, and high-risk tasks. They operate machinery, handle heavy materials, or oversee technical processes such as crushing, mixing, or packaging (Wen Lim et al., 2018). Unlike office work, these jobs are labour-intensive and conducted in harsh environments, involving heat, dust, noise, and exposure to chemicals. Without proper motivation, workers may experience burnout, fatigue, or disengagement, which can impact safety and performance (D'Alleva et al., 2023). For example, a machine operator motivated solely by the fear of punishment (external regulation) might perform only the bare minimum (D'Alleva et al., 2023). In contrast, one who identifies with the company's goals (identified regulation) may work harder to ensure quality. Motivation influences safety behaviour; motivated employees are more likely to follow safety rules and wear protective gear (Wen Lim et al., 2018). In high-risk settings, even a small mistake can lead to serious injury, highlighting the importance of motivation for both performance and workplace safety (Chan & Hagger, 2012).

Most workplace motivation research has used variable-centred approaches (Ahmed et al., 2023; Chan & Hagger, 2012; Diamantidis & Chatzoglou, 2019; D'Alleva et al., 2023), which focus on overall patterns in how motivational factors relate across entire populations. While useful, this method often overlooks the existence of distinct subgroups of employees who may show unique combinations of motivation types (Freed et al., 2020; Morin, 2016; Tóth-Király et al., 2021). Furthermore, many models reduce motivation to a simple split between extrinsic and intrinsic motivation (Lestari & Perdhana, 2023; Seniwoliba, 2013; Vulley, 2021). This framework is built on the more detailed framework of Self-Determination Theory (SDT), which outlines six types of regulation along a continuum from amotivation to intrinsic motivation (Ryan, Olafsen, & Deci, 2017). This research used the SDT as its theoretical framework because, among many motivational theories developed over the years (Kanfer et al., 2017), self-determination theory (SDT; Ryan & Deci, 2017) is one of the most well-developed frameworks for studying human motivation, especially in work contexts (Deci, Olafsen, & Ryan, 2017; Gagné & Deci, 2005). Research in the workplace generally supports these claims, showing that work motivation can

take various forms, each with different effects on work-related outcomes (Deci et al., 2017; D'Alleva et al., 2023; Morin, 2016; Tóth-Király et al., 2021).

Although SDT is widely accepted as a strong theory for understanding motivation, researchers have rarely employed person-centred methods, such as Latent Profile Analysis (LPA), to examine how these motivation types cluster differently among individuals in collectivist cultures. According to Morin (2016), person-centred approaches relax the assumption of the variable-centred approach by identifying subpopulations, or profiles, of workers characterised by distinct behavioural regulation configurations (Morin, 2016). This gap is significant in industrial contexts, where job conditions and cultural values can shape distinct motivational profiles. This study aimed to identify the number of motivational profiles among employees in the non-metallic mineral processing sector in a collectivist culture.

Methods and Data

Design

This study adopted a descriptive survey design. Descriptive surveys focus on what exists rather than exploring causal relationships. In the context of this study, the descriptive survey design was appropriate because it enabled the researchers to examine employee motivation profiles in a non-metallic mineral processing company in a collectivist culture. This approach made it possible to capture employees' perspectives on motivation grounded in the constructs of Self-Determination Theory.

Population

The study population comprised employees of one non-metallic mineral processing company in Ghana. One hundred and five (105) employees participated in this study. Of the respondents, 78.1% were male, and 21.9% were female. This suggests that most of the workers were males. Regarding age, the majority of respondents (51.4%) fall within the 21–30-year age group. This demographic pattern reflects the broader structure of Ghana's industrial sector, in which physically intensive, technically skilled jobs such as machinery operation, loading, and processing are often dominated by men (Ghana Statistical Service, 2014). The youthful nature of the workforce is also consistent with national labour force statistics, which show that industrial employment in Ghana is increasingly attracting younger workers, particularly those seeking technical experience or economic stability early in their careers (Ghana Statistical Service, 2014; 2023). In this context, the motivational patterns mainly highlighted Profile 3 (Moderately self-determined employees) and Profile 2 (Socially Driven employees), indicating that younger industrial workers in Ghana display a nuanced mix of intrinsic and extrinsic motivations. This aligns with Vignoles et al.'s (2016) findings, which note that young individuals in collectivist cultures are increasingly balancing community responsibilities with personal ambitions, mainly due to digital globalisation and evolving values.

The decision to select a sample of 105 employees for the latent profile analysis (LPA) is well-founded and justified by the study design and population size. Research by Dziak et al. (2014) indicates that, for the BLRT at an α level of 0.05, a sample of just over 100 yields approximately 80% power. They also noted that factors such as class size and measurement strength influence the LPA sample size needs (Tein, Coxe, & Cham, 2013). In this study, the model fit indices were clearly distinguished. Additionally, for small, focused organisational groups, such as a single company, smaller samples are suitable because they encompass the full range of motivational patterns within a contained work environment. Consequently, using 105 participants was appropriate and sufficient for developing latent profiles that accurately represent the motivational dynamics of employees in Ghana's non-metallic mineral processing industry.

Data Collection Instrument

In measuring the study variable, the researchers adapted the Multi-Dimensional Work Motivation Scale (MWMS) developed by Gagné et al. (2015). This questionnaire comprises 19 items, each rated on a four-point scale from 1 (does not correspond at all) to 4 (corresponds very strongly). It assesses six dimensions of work motivation: intrinsic motivation, integrated regulation, identified regulation, introjected regulation, external regulation, and amotivation. Sample items include, "I do not know why I am doing this job; it is pointless to work" (Amotivation), "Because others will reward me financially only if I put enough effort into my job (e.g., employer, supervisor)" (External regulation), "Because otherwise, I will feel ashamed of myself" (Introjected regulation), "Because putting efforts in this job aligns with my values" (Identified regulation), "My work reflects what I truly care about in life" (Integrated regulation), and "Because the work I do is interesting" (Intrinsic motivation). Validity and reliability were established through professional review and statistical analysis. Research experts assessed content validity, while SPSS version 25 was utilised to evaluate the reliability of the scale items. The scale demonstrated a reliability coefficient of .897, indicating high reliability, as it exceeds the recommended threshold of 0.70 (Cronbach & Shavelson, 2004).

Ethical Considerations

An introductory letter was sent to the selected organisation to obtain permission for the study. Informed consent was obtained through three main procedures: providing complete information about the study, confirming the participants' ability to make an informed decision, and emphasising the voluntary nature of their participation. Respondents were not required to answer any questions with which they were uncomfortable. To ensure anonymity and confidentiality, no identifying information was collected. A consent letter was shared with participants as a formal means of confirming their agreement to participate in the study. Questionnaires were given in both printed and electronic formats to fit participants' varying schedules. Printed copies were distributed during work breaks or after shifts for

those present on-site. For workers unable to respond immediately, arrangements were made for them to complete it later. Those on leave or working remotely were contacted using the company directory or by phone. With consent, online forms were sent via email or WhatsApp using Google Forms, and reminders were issued to ensure responses.

Results

Number of Motivational Profiles of Employees

The study examined whether distinct profiles exist based on levels of work motivation. To identify these latent profiles, three models were compared using various fit indices and classification diagnostics (see Table 1). The acronyms AIC, KIC, BIC, SABIC, CAIC, and CLC denote different measures used in statistical model selection to assess model fit. The Akaike Information Criterion (AIC) balances model fit with complexity, while the Kullback Information Criterion (KIC) emphasises predictive accuracy. BIC, or Bayesian Information Criterion, applies a more substantial penalty for model complexity than AIC. The Sample-Size Adjusted BIC (SABIC) modifies the BIC to account for sample size, whereas the Consistent AIC (CAIC) incorporates sample-size adjustments to enhance consistency. The Classification Likelihood Criterion (CLC) assesses classification quality, particularly in latent profile analysis. Entropy, which ranges from 0 to 1 and functions similarly to a reliability coefficient (Asparouhov & Muthén, 2014), measures classification accuracy. An entropy close to 1 is preferred (Celeux & Soromenho, 1996), with values above .8 considered acceptable. For the three-class profile model, entropy was .852, indicating acceptability. As recommended by Bauer et al. (2022), latent profiles were identified based on these fit indices and the interpretability of the profiles.

Pro.	AIC	KIC	BIC	SABIC	CAIC	CLC	Log-Lik	Entropy	P-val
1	1129	1144	1161	1123	1173	1107	-553	1.000	<.001
2	1095	1117	1146	1086	1165	1059	-529	0.783	<.001
3	1048	1077	1117	1035	1143	998	-498	0.852	<.001

Table 1: Model Comparison

After exploring several profiles and considering the practical implications, the researchers decided to compare three models. Comparing the model fit indicators of the three profiles, the model associated with the three profiles of motivation was found to be superior (LogLik = -498, AIC = 1048, BIC = 1117, SABIC = 1035, CAIC = 1143, CLC = 998, Entropy = 0.852, $P < .001$). Though the interpretation of the model is essentially a theoretical issue, the researchers applied some methodological considerations. First, the researchers considered the number of sample members in each class, which, according to Muthén and Muthén (2000), should be at least 5 cases in each profile. This assumption was satisfied

(see Table 2). Solutions with adjacent latent profile numbers were compared to determine which profiles in the previous (a priori) solution the new profiles were derived from. It was found that latent profiles were distinctive enough, that is, there is low variability within latent profiles and high variability between them (Collins & Lanza, 2009).

Profile Membership	Frequency	%ECPS
Profile 1	12	8.3
Profile 2	37	36.4
Profile 3	56	55.3

Table 2: Probability of Profile Membership

**Estimated Profile Population share – ECPS.

Table 2 presents the results on the probability of profile membership. It was found that the majority (56) of the respondents had a 55.3% probability of being in profile 3. Also, 37 sample members had a 36.4% chance of belonging to profile 2. However, 12 sample members had an 8.3% probability of being in profile 1.

PM	Motivational types	Mean	SD
Profile 1			
	Amotivation	1.31	.33
	Externally Regulated	2.00	1.04
	Introjected Regulation	3.00	.83
	Regulation through Identity	3.67	.31
	Integrated Regulation	3.69	.44
	Intrinsic Motivation	3.78	.30
Profile 2			
	Amotivation	2.14	.57
	Externally Regulated	3.49	.45
	Introjected Regulation	2.91	.33
	Regulation through Identity	3.22	.38
	Integrated Regulation	3.10	.26

	Intrinsic Motivation	2.53	.55
Profile 3			
	Amotivation	1.45	.53
	Externally Regulated	2.15	.45
	Introjected Regulation	2.15	.52
	Regulation through Identity	2.95	.32
	Integrated Regulation	3.23	.58
	Intrinsic Motivation	2.71	.35

Table 3: Descriptive Statistics on Motivational Profiles

**Profile Membership – PM; **Standard Deviation – SD

Table 3 presents the highest and lowest mean scores for each motivational profile. For Profile 1, the highest mean score was for intrinsic motivation (M = 3.78, SD = 0.30), while the lowest was for amotivation (M = 1.31, SD = 0.33). In Profile 2, the highest mean score was for external regulation (M = 3.49, SD = 0.45), and the lowest was for amotivation (M = 2.14, SD = 0.57). For Profile 3, the highest mean score was for integrated regulation (M = 3.23, SD = 0.58), and the lowest was for amotivation (M = 1.45, SD = 0.53).

Naming Based on Motivational Profiles

Once the profiles were extracted, the researchers interpreted each profile's meaning based on the relative levels of these indicators. Consistent with guidelines from Morin et al. (2016) and Nylund-Gibson & Choi (2018), the naming of each latent profile is considered:

1. the magnitude and configuration of scores across motivational dimensions,
2. the theoretical interpretation based on SDT, and
3. existing literature on motivation profiling in workplace contexts (e.g., Gillet et al., 2020; Fernet et al., 2020).

Profiles were named to reflect the individuals' positions along this continuum and the dominant motivational forces driving their work behaviour. This is shown in Figure 1.

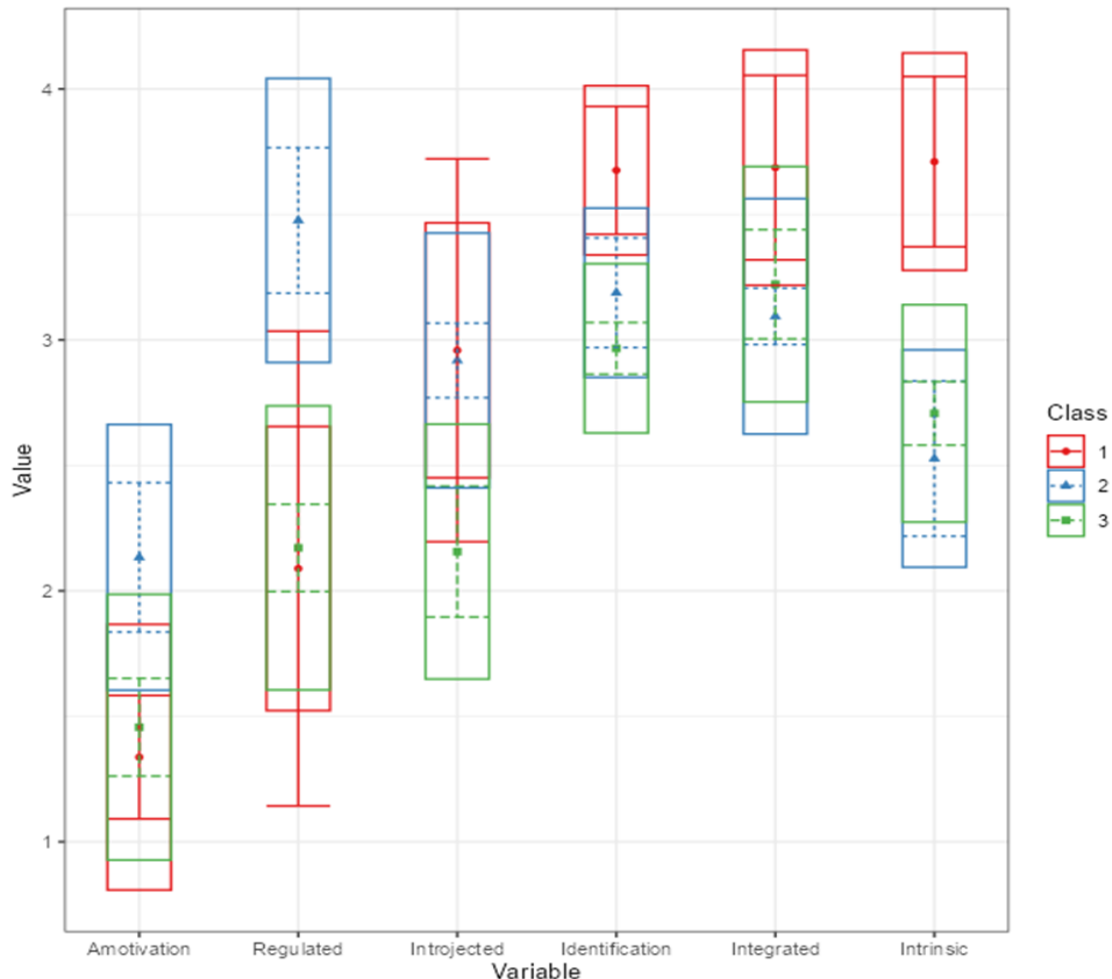


Figure 1: Latent Profile Box Plot

Profile 1: High Self-determined Employees (n=12, % = 11.4)

This profile is characterised by high scores in intrinsic motivation and identified regulation. Low amotivation suggests strong internal motivation (Tóth-Király et al., 2021). This profile aligns with SDT's notion of autonomous motivation, where individuals act based on personal interest and internalised values. Such a profile is consistently recognised in SDT-based latent profile studies (e.g., Gillet et al., 2020) and often associated with favourable workplace outcomes, including engagement and well-being (D'Alleva et al., 2023).

Profile 2: Socially Driven Employees (n=37, % = 35.2)

Profile 2 comprises high extrinsic social regulation and moderate intrinsic motivation. This profile appears to be driven by a desire for social recognition and external validation. This group of employees exhibits high external social motivation, meaning their behaviour is largely influenced by external factors

such as social approval, recognition, or rewards (Tóth-Király et al., 2021). They may also experience moderate intrinsic motivation but rely heavily on external validation. An employee in this profile will primarily work hard to receive praise from their manager or earn a bonus, rather than out of love for their job (Tóth-Király et al., 2021).

Profile 3: Moderately Self-Determined Employees (n=56, % = 53.2)

Employees within this profile have moderate to high scores across intrinsic and identified regulation. This profile shows a balance between intrinsic and extrinsic motivators. These individuals show moderate to high levels of intrinsic and extrinsic motivation, striking a balance between personal satisfaction and external rewards. They are motivated by internal factors but still value external validation to some extent. Employees in this profile tend to love their work and demonstrate positive employee behaviour, but also appreciate positive reviews and royalties (extrinsic motivation).

Discussion

Motivational Profiles of Employees

This study examined the various types of motivation among employees and found that most were driven more by personal interests and internal values than by external pressure. Overall, motivation levels were highest for intrinsic motivation, integrated regulation, and regulation through identification, all of which are considered more autonomous (Deci & Ryan, 2000). The study identified three motivational profiles: high self-determined, socially driven, and moderately self-determined. In Profile 1 (high self-determined), the low standard deviations for regulation through identification (SD = 0.31), integrated regulation (SD = 0.44), and intrinsic motivation (SD = 0.30) indicate consistent internal motivation. However, introjected (SD = 0.83) and external regulation (SD = 1.04) showed relatively high variability, suggesting that although most were self-driven, some still felt occasional guilt or external pressure. The findings align with those of Howard et al. (2016), who observed that, in both samples, the highly motivated profile (Profile 3) exhibited low amotivation combined with moderate to high levels of other forms of regulation. These levels rise proportionally with their degree of self-regulation, as outlined by SDT. This profile clearly indicates the highest levels of autonomous motivation.

One potential explanation for this profile is that, within Ghana's non-metallic mineral processing industry, employees frequently encounter arduous working conditions and may initially exhibit limited interest in their occupations (Ahadzi et al., 2020; Segbenya et al., 2022). For instance, Ahadzi et al. (2020) found that workers near stone crushers, particularly those who do not utilise personal protective equipment (PPE), report symptoms such as eye irritation, respiratory difficulties, and coughing. Nevertheless, prevailing cultural and social expectations often compel numerous employees to remain in their positions despite these challenging conditions. This endurance is frequently motivated by internal pressures,

including guilt, shame, or perceived obligations to support their families or fulfil societal roles, rather than by authentic job satisfaction or interest (Deci & Ryan, 2000). Although direct evidence indicating that guilt or shame compels persistence in arduous non-metallic mineral jobs appears absent, certain studies suggest that Ghanaian work culture is profoundly shaped by social, religious, and moral obligations (Ackah, 2014; Mensah, 2019). Mensah (2019) identified a significant positive correlation between sociocultural values and job satisfaction, with the strongest relationship observed between moral values and job satisfaction.

Findings generally align with Self-Determination Theory (SDT), which explains that workers sometimes adopt external pressures as their own, leading them to act out of duty rather than genuine motivation. In Ghana's collectivist society, where family and community opinions strongly influence behaviour, employees may push themselves to perform well to avoid disappointing others. For example, a worker whose family helped them secure the job may feel obligated to stay, fearing guilt if they underperform or quit. Similarly, witnessing coworkers endure harsh conditions without complaint may pressure employees to conceal their dissatisfaction and conform, even if they dislike their work (Ackah, 2014; Mensah, 2019). The behaviour of suppressing dissatisfaction to conform to workplace norms aligns with Festinger's (1954) social comparison theory, which posits that individuals evaluate their attitudes and behaviours by comparing themselves to others. This dynamic behaviour is further reinforced by organisational conformity pressures (Asch, 2016), particularly in hierarchical work environments where dissent is discouraged to maintain group cohesion (Hofstede, 1980). In Ghana's mineral processing sector, where job insecurity is high, such conformity may stem from fear of standing out or being penalised for non-compliance (Silva, Gonçalves, & da Cunha, 2024; Tepper, 2007).

Additionally, in close-knit Ghanaian communities, male employees in particular may be reluctant to admit that their jobs are too demanding, as doing so could be perceived as a sign of weakness and may lead to a loss of respect among peers and community members (Adinkrah, 2012). This tendency reflects prevailing cultural constructions of masculinity, in which men are expected to display resilience, endurance, and financial responsibility (Danso et al., 2024). For instance, a worker whose family depends on their income may keep working out of duty, even if the job is unrewarding. Others may stay because a community leader recommended them, feeling quitting would dishonour that trust. Over time, these external pressures become internalised, meaning employees work not because they want to, but because they feel they must. This concurs with findings from Danso et al (2024), who revealed that despite site workers' awareness of catastrophic physical injuries attached to their job, they continue relying on the favour and mercies of a supreme being as coping strategies to escape from these physical injuries (Vansteenkiste et al., 2004).

Although many employees rely on faith in a supreme being as a coping mechanism to endure the physical demands and injuries associated with their work, such persistence often comes at an emotional cost. Willems et al. (2020) note that individuals in helping or demanding roles may experience compassion fatigue, characterised by a reduced ability to care or remain emotionally engaged due to prolonged exposure to stress or suffering (Donnellan et al., 2024). This insight helps explain why employees who are primarily intrinsically motivated may simultaneously exhibit high levels of extrinsically regulated motivation; their work is not only enjoyable but also deeply meaningful and socially expected (Ryan, Olafsen, & Deci, 2017). From a practical standpoint, this suggests that even within high-performing teams, a uniform motivational strategy may be ineffective. Employees may still need periodic encouragement, recognition, or constructive feedback that aligns with their distinct motivational orientations and emotional needs.

Extant literature has revealed that employees who demonstrate high levels of intrinsic motivation, integrated regulation, and identification are likely to have a positive impact on key organisational variables such as performance, engagement, innovation, and commitment (Ahmed et al., 2023; Deci et al., 2017; D'Alleva et al., 2023; Howard et al., 2016; Morin, 2016; Tóth-Király et al., 2021). Because these individuals are driven by internal values and personal interest in their work (Ryan & Deci, 2000a; Deci & Ryan, 1980, 2000; Maslow, 1943; Thomas & Velthouse, 1990), they are more likely to persist in tasks, take initiative, and maintain high-quality output even without external supervision. This aligns with findings in some collectivist cultures, where freedom to experiment and intrinsic motivation significantly improve employee performance (Alhassan, Akparep, & Ngmenkpiewo, 2022; Andika & Darmanto, 2020; Salamah, 2021). Their motivation style also reflects a sense of psychological ownership and responsibility, which contributes to better teamwork and organisational citizenship behaviors. According to studies by Deci, Olafsen, & Ryan (2017), employees with high self-determination are more likely to respond positively to opportunities for learning and responsibility, which are essential for adaptability and innovation in rapidly changing industries. Their enthusiasm and commitment may also inspire their peers, fostering a work culture that values autonomy, purpose, and excellence. As such, organisations that recognize and support these employees' intrinsic goals are more likely to achieve sustained success and employee retention (Alhassan et al., 2022; Okeke-Uzodike & Anusi, 2025).

Compared to more autonomous profiles, employees driven by social motives (Profile 2) are motivated by the desire to meet expectations or avoid negative outcomes rather than personal interest. This differs from findings in several motivational studies (Howard et al., 2016; Tóth-Király et al., 2021). The high levels of introjected regulation, regulation through identity, and integrated regulation suggest that socially driven employees are in a transitional phase, where external motivations are slowly internalised. As Deci and Ryan (2000) explain, external regulation is the least autonomous form of motivation, usually leading to short-term compliance rather than sustained engagement. While this profile may be less common in

some collectivist cultures, it remains evident in the Ghanaian context. Several relevant themes help explain the motivational patterns observed among this group of employees in the non-metallic mineral processing sector (Gyekye, 2005). In addition to the discussion of social expectations in collectivist culture, economic considerations play a vital role. Employment in industries like mining and mineral processing is viewed as stable and well-paying compared to other sectors (Amponsah-Tawiah & Mensah, 2016). As a result, many employees accept roles not because they enjoy the work but because of the financial rewards and the need to support their families (Kuranchie-Mensah & Amponsah-Tawiah, 2016). This economic pressure, in our view, mainly drives external motivation, as seen in Profile 2, where employees work primarily to avoid job loss or gain material benefits rather than from personal interest or passion. Again, this profile is especially evident in cases where opportunities for professional growth and skill development are limited (Owusu, 2014).

This is particularly evident among employees without higher education or specialised training (Owusu et al., 2021). Bernard et al (2014) explain that employers face the challenge of providing such training and avenues, which are usually costly and cumbersome. This may result in employees remaining externally motivated, with little internal drive to improve or grow within the organisation (Kuranchie-Mensah & Amponsah-Tawiah, 2016). Without structured mentorship, capacity building, or clear promotion systems, workers may not progress toward more autonomous forms of motivation (Kuada, 2010). One important theme that emerges in this context is the crucial role of organisational leadership and management style in influencing motivation (Kwofie et al., 2025). Since several studies have shown that employees respond positively to supportive leadership that values communication, recognition, and staff welfare (Kuada, 2010; Obuobisa-Darko & Domfeh, 2019), in environments where management is strict, authoritarian, or only focused on output, employees may feel pressured to comply, resulting in higher external regulation but lower intrinsic motivation. Therefore, to transition employees from controlled to autonomous motivation, companies must adopt leadership approaches that foster participation and self-direction and align work tasks with personal values (Kwofie et al., 2025; Obuobisa-Darko & Domfeh, 2019).

Conversely, Profile 3 indicates that individuals in this group are partly self-determined. They find some personal meaning in their work but may not be entirely driven by passion or deeply internalised work values. According to Ryan and Deci (2000), such employees are in the process of internalising external motives. They may become more self-regulated over time if the work environment continues to support autonomy, competence, and relatedness. Gagné et al. (2015) explain that this group reflects a developmental stage of motivation where both internal beliefs and external factors, such as rewards or recognition, influence work behaviours (Ahmed et al., 2023). The fact that most employees fall into this profile may indicate a realistic mix of motivation within a collectivist culture. Many industrial and corporate environments, especially in developing countries, tend to be structured to support basic needs

and job security but may lack consistent psychological backing for full self-determination (Kuranchie-Mensah & Amponsah-Tawiah, 2016). For example, workers might be partly motivated by internal values, such as a desire to contribute, grow, or take responsibility, but still require external incentives or supervision to stay fully engaged (Owusu, 2014). This situation reflects a transitional motivational profile, standard in collectivist contexts where job roles are changing, or leadership styles are moderately supportive but not fully empowering (Normianti, Aslamiah, & Suhaimi, 2019). It suggests that employees in profile “3” may be at an increased risk of burnout or disengagement over time because their motivation is not fully internalised or self-sustaining (Gagné et al., 2015). Partial motivation, such as this, can become unstable if the work environment does not consistently support their basic psychological needs, including autonomy, competence, and relatedness, leading to a decline in motivation that can impact their well-being and job retention (D’Alleva et al., 2023).

Conclusion

This study’s examination of motivational profiles among employees in Ghana’s non-metallic mineral processing sector reveals three distinct patterns of work motivation. Collectively, these findings advance our theoretical and cultural understanding of work motivation in several ways. First, they demonstrate the applicability of SDT in industrial contexts while highlighting central cultural modifications to the theory’s predictions. Second, they provide empirical evidence for multiple pathways to work engagement, challenging the notion that intrinsic motivation is always the optimal or necessary endpoint. Third, the study provides a more comprehensive understanding of how different motivational regulations interact in real-world workplace settings, particularly in collectivist cultures. In practice, the study underlines the importance of tailored motivation strategies that recognise employees’ diverse motivational profiles and the cultural context in which they work. Future research should investigate the relationship between these profiles and long-term outcomes, such as organisational citizenship behaviour (OCB), well-being, and retention intentions, in similar industrial settings.

Practical and Theoretical Significance in Collectivist Cultures

Highly self-determined employees

This study provides strong evidence in support of Self-Determination Theory (SDT), which posits that motivation exists along a spectrum ranging from low to high quality (Deci & Ryan, 2000). The findings, especially in Profile 1, support SDT’s view that motivation is not solely intrinsic or extrinsic but a mix that fluctuates based on one’s experiences. The use of LPA also enhanced SDT research by identifying distinct motivation profiles among workers. At the same time, the findings challenge certain aspects of Equity Theory, which suggests that when people feel they are mistreated, their motivation and performance decrease (Adams, 2015). In this study, employees with high self-determination still showed

strong motivation even when raising concerns about fairness issues. This could be influenced by Ghana's collectivist culture, where individuals often feel a deep obligation to their families or worry about social shame, motivating continued effort. These internal pressures may slow down, but do not prevent the impact of unfair treatment (Greenberg, 2010). To enhance employee motivation and well-being, management should first promote fairness through regular pay reviews, transparent promotion policies, and anonymous reporting channels. Second, help workers connect their tasks to their personal goals and community values through training and mentorship. Third, reduce guilt-driven work by fostering a supportive environment that ensures the fulfilment of cultural obligations and fundamental psychological needs.

Socially driven employees

Profile 2 reveals a unique motivational pattern in which high external regulation coexists with high identified and integrated regulation, indicating a complex interaction among motivation types, rather than the simple view presented by SDT (Deci & Ryan, 2000). This challenges the traditional idea that motivational types follow a precise sequence along the SDT continuum. This profile provides a fresh perspective on Cognitive Dissonance Theory (Festinger, 1957), which posits that people experience discomfort when they hold conflicting motivations. However, employees in Profile 2 appear to manage both external and internal motivations without distress. This may be influenced by cultural factors, particularly in collectivist societies, where such combinations of motivation are more accepted. Overall, the findings imply that, in some collectivist cultures, motivation is more adaptable. For Profile 2 workers, combining rewards with meaningful work proves effective, challenging the notion that intrinsic motivation must always be the primary focus.

Management should implement a dual-focus approach that combines performance incentives with purpose-driven engagement efforts. Since these employees strongly identify with their work, leaders must maintain consistent communication through regular briefings, staff meetings, and visual displays that connect daily tasks to larger social or national benefits. Additionally, managers should strengthen recognition systems that value individual and team achievements, as well as support from family and community. Initiatives like "Employee of the Month," "Family Appreciation Days," and public acknowledgements at community events can strengthen workers' sense of belonging. Again, management should strengthen and monitor ongoing, equitable welfare support, such as healthcare, education sponsorships for children, or assistance funds, that align with social expectations and foster emotional commitment in collectivist cultures. Finally, industrial leaders should understand that motivation is dynamic, changing with organisational shifts and external factors. Regular employee surveys, motivational profiling, and feedback sessions can identify shifts in motivational drivers.

Moderately self-determined employees

Findings from Profile 3 (Moderately Self-Determined) offer important contributions to Self-Determination Theory (SDT). This pattern suggests that full intrinsic motivation is not always necessary for optimal functioning (Tóth-Király et al., 2021), extending the traditional SDT view that intrinsic motivation is the ideal outcome (Deci & Ryan, 2000). Additionally, Profile 3 offers insight into SDT's internalisation process. The presence of highly integrated regulation alongside low introjected regulation suggests that workers may bypass guilt-driven motivations when their psychological needs, autonomy, competence, and relatedness are met through alternative channels. Cultural factors may influence this. This profile also adds to other motivation theories. For instance, it refines Vroom's Expectancy Theory (1964), which emphasises the connections between effort and reward. Here, employees seem to stay motivated not necessarily because of external rewards, but because they believe in their ability (expectancy) and see work as aligned with personal or cultural values (instrumentality). Similarly, Profile 3 challenges Herzberg's Two-Factor Theory (1965), which distinguishes between motivators and hygiene factors. In this context, elements such as pay or working conditions may act as motivators when tied to identity or social responsibility. This indicates that what motivates workers may differ across cultures and geographic settings.

Based on these findings, management should adopt strategies that foster balanced motivation and reduce dependence on external forms of drive. Although employees in this profile may often exhibit high commitment and productivity, their motivation is typically driven by external pressure or self-imposed standards, which can lead to burnout and work addiction. Organisations need to create environments that promote both mental well-being and high performance by acknowledging effort, supporting healthy work-life boundaries, and offering autonomy-supportive leadership. Managers and supervisors should receive ongoing training in delivering constructive feedback that enhances skills. Additionally, HR managers should ensure that elements of HR policies, such as wellness programmes, flexible work arrangements, and opportunities for employees to engage in personally meaningful projects, are effectively implemented. Regular check-ins and mentorship can foster a perspective where success is viewed as growth and contribution, rather than solely as constant achievement.

Limitations

Though this study provides insights into motivational profiles in Ghana's non-metallic mineral processing sector, several limitations should be considered. First, the sample size (N = 105) restricts the generalizability of the findings to broader industrial contexts. Larger, more diverse samples would strengthen the reliability of the identified profiles. Second, the cross-sectional design captures motivation at a single point in time. Latent transition analysis with longitudinal data would better reveal how these profiles evolve in response to changing work conditions or career stages. Third, the reliance on self-

reported questionnaires may introduce response bias, as participants might underreport negative experiences due to social desirability concerns. Future studies could benefit from mixed-methods approaches that incorporate observational data and documentary reviews to explain the motivational types within each profile group. Ultimately, the study focused on a single industrial sector within a collectivist culture. Although this offers context-specific insights, findings may not fully apply to other collectivist cultural settings or industries with different work structures. Comparative studies across sectors and countries would help validate these motivational patterns. Addressing these identified limitations in future research could yield more robust conclusions. Despite these limitations, the study establishes a foundation for understanding motivation and motivational profiles of industrial employees in the collectivist culture.

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