From Passion to Pressure: A Quantitative Study on Creative Motivation and Feedback Anxiety in Online Fandom

Enxin Zhang *

School of Foreign Languages and Literature, Beijing Normal University, Beijing, China

* Corresponding Author Email: 202211180041@mail.bnu.edu.cn

Abstract. Fan-creations emerged as a prominent form of participatory culture, as fans reuse and reinterpret existing media through their creative outputs. In earlier studies, creativity among fans has been qualitatively investigated. Nevertheless, very little quantitative evidence has been gathered. In this context, this study used an online questionnaire incorporating adapted measures of Intrinsic Motivation, Extrinsic Motivation, and Feedback Anxiety to investigate the role of the underlying psychological factors corresponding to the fan-creation producers. The collated information among 257 fan-creators was analysed through methods involving correlation analysis, regression analyses, Individual sample t-test analyses, as well as the One-way ANOVA test. Results revealed a very strong positive relationship between Extrinsic Motivation and Feedback Anxiety, whereas intrinsic motivation was not statistically significant. Regression analyses were performed to validate the tests mentioned above involving Extrinsic Motivation as a positive factor and Intrinsic Motivation as a negative factor. Further contextual analyses showed that while inner drive varied by the recentness of publish activity, extrinsic motivation varied by age, number of creative forms, platform number, and creative experience. In general, externally oriented drives rather than demographic characteristics seem to be more related to feedback anxiety. By bridging fan studies and psychology, this research highlights how integrating motivational theory into media analysis might help platforms and creators move toward healthier and non-metric-driven feedback cultures.

Keywords: Online Fandom; Creative motivation; Feedback Anxiety.

1. Introduction

1.1. Background

Recent years have witnessed the popularisation of fan-created works, while the number of fan-work creators has increased and developed into a distinctive community. Non-professional participants' imaginative recreations of pre-existing media provided a unique glimpse into the relationship between passion-driven creative motivation and social feedback.

Fan-created works, such as fanfiction, fan art, and other transformative forms, are based on prior media products but are reinterpreted through personal imagination and affective engagement. Since the appearance of the initial notion of textual poaching to legitimise the subculture, the motivation of fan-work creators was described as actively reinterpreting cultural elements to convey identity and emotion [1]. The communal and affective richness of fan creation was brought to attention by subsequent studies. By connecting creative involvement with identity and emotional labour, Hills viewed fandom as an affective investment [2]. It was revealed later that fan creators experienced the duality of empowerment through expression but also underwent anxiety about social exposure and evaluation [3]. Moving to the digital era, online fan practices can be understood as a form of performative identity work, where digital connectivity and visibility intertwine creativity with self-presentation [4]. As the following studies noted, online platforms further intensified these dynamics by embedding feedback, peer recognition, and circulation into the creative process itself, transforming participation into an ongoing negotiation of identity and community belonging [5]. These perspectives demonstrated that fan creation is a socially embedded creative process rather than a solitary pastime, with audience feedback playing a crucial role in emotional experience and motivation.

Motivation has been essential to comprehending creative behaviour for decades. According to Motivational Synergy Theory (MST), only when extrinsic factors (e.g. recognition) are viewed as supportive rather than controlling can they improve performance, while intrinsic motivation (such as curiosity and enjoyment) performs as the most efficient driver of creativity [6]. Self-Determination Theory (SDT) makes a distinction between intrinsic and extrinsic motivation as well, further pointing out that gratifying autonomy, competence, and relatedness is essential for psychological well-being and perseverance [7]. Theories above have constructed a framework to account for the performance of voluntary creators, exemplified by fan-work creators, to frequently maintain involvement motivated by feelings of community and psychological fulfilment, without receiving material reward or compensation. Recent studies focusing on motivation in digital environments refined the framework. According to research by Mehta and colleagues, extrinsic control increases sensitivity to stress and anxiety, suggesting that creative confidence may be undermined by outside validation [8]. A synthesised study of user-generated content research found that individuals constantly fluctuated between producing for their own gratification and looking for approval from others in interconnected contexts, resulting in a struggle between intrinsic and extrinsic motivations [9]. These studies increased credibility to the idea that the motivation of online producers is an outcome of a dynamic interaction between social approval and inward fulfilment, which is a conflict that is salient in fandom settings as well.

While motivation determines why creators start creativity in the first place, feedback influences how they feel about their engagement. Control-Value Theory of Achievement Emotions (CVT) argues that both the perceived value of an activity and the perceived control over outcomes are roots from which emotions like anxiety or enjoyment arise [10]. Therefore, anxiety appears more frequently when creators value their works dearly but cannot control the condition of feedback. In communities of online fan-work creators, feedback is not only a social connection, but also an evaluation, making this imbalance acute. Empirical and Human-Computer Interaction (HCI) studies add more clues to the inference that online feedback systems, motivation and emotion influence each other mutually. Peer feedback decreases performance pressure, increases learning outcome and evaluative sensitivity [11, 12]. Frequent platform iteration heightens awareness of audience judgment [13]. Practically, social attention mechanisms influenced creative approach, for instance, fanfiction authors actively balance between sameness and uniqueness to gain positive feedback [14]. Psychological studies on digital areas reveal that social comparison in feedback-rich environments contributes to emotional tiredness [15]. Cheng and Frens qualitatively observed that feedback exchange among fanfiction writers fosters community but also triggers anxiety about expectations of audiences [16]. Nevertheless, these studies largely focus on general or clinical populations and use qualitative methods, leaving a lack of quantitative evidence on how fan creators' motivational patterns relate to feedback-related anxiety.

1.2. Research Gap

Despite increasing attention to fans' creative participation, quantitative evidence on how different motivational dimensions shape feedback anxiety remains scarce. This study addresses this gap by using large-scale survey data from Chinese online fan creators to examine how motivation, platform activity, and feedback perception jointly influence emotional experience.

1.3. Research Questions and Hypotheses

Research Question 1: How do different types of motivation (intrinsic vs. extrinsic) relate to feedback-related anxiety among online fan creators?

Research Question 2: How do social and temporal contexts of creation (e.g., last time of publication, platform involvement) moderate this relationship?

Research Question 3: Do creators' self-evaluation of feedback quality influence their experience of feedback anxiety?

Hypothesis 1: Intrinsic motivation will be negatively associated with feedback-related anxiety.

Hypothesis 2: Extrinsic motivation will be positively associated with feedback-related anxiety.

Hypothesis 3: The relationship between motivation and anxiety will vary by creators' publication recency and platform involvement: more active and multi-platform creators may experience greater anxiety due to feedback pressure.

Hypothesis 4: Higher self-evaluation of feedback quality predicts lower feedback anxiety.

These questions and hypotheses address the research gap. RQ1/H1–H2 test the core role of motivation in anxiety, RQ2/H3 examines contextual moderators suggested by prior HCI and psychological studies, and RQ3/H4 evaluates whether creators' subjective appraisal of feedback can mitigate anxiety. Together, they provide an empirical and thorough investigation of how motivation, self-evaluation, and creative background shape emotional experiences in online fan communities.

2. Methods

2.1. Participant

The survey was conducted via voluntary convenience sampling on mainstream China's mainland social media and fandom community platforms and involved 295 online fan-work creators in total. 257 valid surveys were kept for analysis after invalid or partial replies were excluded. Participants ranged in age from 12 to over 30, and they had a variety of creative backgrounds in different forms of fan-work creation. Their creative experience ranged from groups of less than six months to groups of more than five years. Additionally, the majority were identified as female.

This sample size provided adequate statistical power for medium effect sizes; therefore, it was considered sufficient for correlation and ANOVA analyses.

2.2. Procedure

This questionnaire was distributed online from 30th September to 10th October 2025. Participants were anonymous. Before the beginning of the survey, all respondents were informed of the research purpose, confidentiality principles, and their right to withdraw at any time. No personally identifiable data was collected.

The questionnaire consisted of three parts: (1) Demographic information and fan-work creative background, including age, years of fan-work creation, number of active publishing platforms, and time since last publication; (2) Motivation scale, assessing intrinsic and extrinsic motivation toward fan-work creation; (3) Feedback-related anxiety scale, measuring emotional reactions toward feedback and evaluation on online platforms.

The first section collected demographic and creative information through multiple-choice and ranking items (e.g., selecting primary creative platform). The second and third sections employed 5-point Likert-type scales ranging from 1 = not at all true for me to 5 = completely true for me, assessing motivation and feedback-related anxiety.

2.3. Measures

2.3.1. Intrinsic and Extrinsic Motivation

Motivation was measured through items adapted from the Academic Motivation Scale (AMS) and the Work Preference Inventory (WPI) [17,18]. Items representing intrinsic motivation reflected feelings of enjoyment, competence, and passion in creation (e.g., "When I immerse myself in creating, I can feel relaxed."). While extrinsic motivation items reflected external orientations such as gaining reward, popularity, and social approval (e.g., "I create to obtain more followers."). To ensure the coverage of both controlled and autonomous motivational orientations, the adaptation referred to the theoretical framework of SDT as faithfully as possible [7].

2.3.2. Feedback-Related Anxiety

Anxiety toward feedback was measured by items adapted from the State-Trait Anxiety Inventory (STAI) and the Generalised Anxiety Disorder Scale (GAD-7) [19,20]. The items evaluated cognitive

and cognitive reactions towards receiving feedback, including cognitive infiltration, monitoring of behaviour, social comparison, self-doubt following audience responses, and so forth (e.g., “Even when I'm not creating, I kept thinking repeatedly about the feedback on my work.”). Higher ratings reflected greater feedback anxiety regarding comments.

Before the main analysis, SPSS 26.0 was used to assess the questionnaire's validity and reliability. With a Kaiser-Meyer-Olkin (KMO) value of 0.897 and a Bartlett's test of sphericity that achieved significance ($p < .001$). The overall sampling adequacy for factor analysis was adequate, implying good structural validity. Cronbach's α coefficients were used to evaluate each subscale's internal consistency reliability. The results indicated that the scale of feedback anxiety had high reliability ($\alpha = .909$), while the scales of intrinsic motivation and extrinsic motivation had acceptable reliability ($\alpha = .649$ and .677, respectively).

2.3.3. Self-Evaluation Feedback

Participants were asked to provide a self-evaluation of the feedback situation for their most recent published fan creation, which was measured on a 10-point scale ranging from 1 (no feedback at all) to 10 (extremely satisfying feedback, beyond expectation). This item was designed to collect participants’ subjective perception of feedback quality.

This measure was included as a cognitive appraisal indicator to reflect the perceived competence and perceived external validation within the creative feedback process from the participant's perspective. As prior studies in motivation and affect regulation suggested, individuals’ self-evaluation of external outcomes can interfere with both their motivation orientation and emotional states [10]. It serves as a potential mediating or moderating factor which hypothetically links creators’ motivational orientation and feedback anxiety in this research.

2.4. Data Analysis

All data were analysed utilising IBM SPSS Statistics 26.0. Data were screened for completeness and normality before the main analyses. 257 valid cases were retained. Each participant’s mean scores for intrinsic motivation (Mean_IntrinsicM), extrinsic motivation (Mean_ExtrinsicM), and feedback anxiety (Mean_Anxiety) were computed. Higher values indicate stronger motivational or anxiety levels.

Three steps were taken in the analysis process: Initially, descriptive statistics were calculated to examine overall tendencies in participants’ motivation and anxiety levels. Secondly, Pearson correlation tests were conducted to assess the relationships between intrinsic motivation, extrinsic motivation, and feedback anxiety. After that, a multiple linear regression analysis was conducted to examine the possible predictive roles of motivation and perceived feedback on creators’ feedback anxiety. Finally, a series of independent-samples t-tests and one-way ANOVA tests was performed to explore differences in motivation and anxiety across creative background and demographic variables, including age group, years of creative experience, number of creative platforms, number of creative forms, and time since last publication.

3. Results

3.1. Descriptive Findings

As demonstrated in Figure 1, across the full sample (N=257), participants reported relatively high Intrinsic Motivation (M=4.2475, SD=0.53438), and moderate Extrinsic Motivation (M=3.3275, SD=0.65655). This pattern indicates that most fan creators are primarily driven by intrinsic motivations rather than external reward. The Feedback Anxiety score (M=3.0256, SD=0.85116) suggests a mild-to-moderate level of tension concerning feedback.

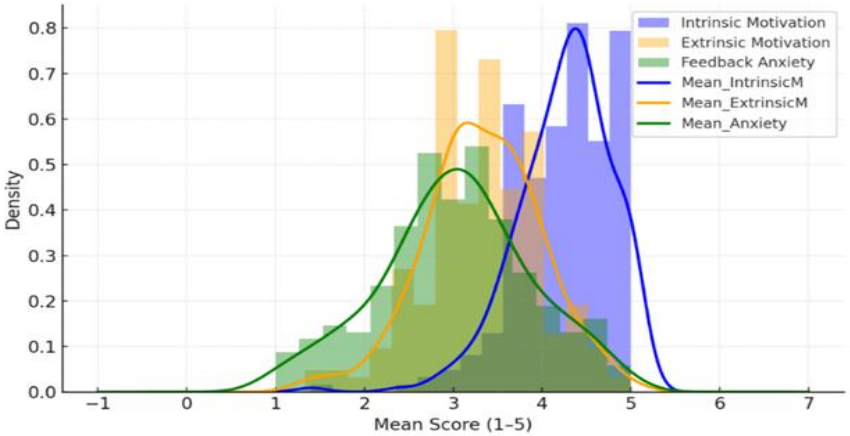


Fig 1. Distribution of Intrinsic/Extrinsic Motivation and Feedback Anxiety.

3.2. Correlation Analysis

Pearson correlation analyses were conducted to examine the relationships among intrinsic motivation, extrinsic motivation, feedback anxiety, and self-evaluation of feedback state (See Table1).

Table 1. Correlations between Mean_IntrinsicM/ Mean_Extrinsic/Mean_Anxiety/Self-Evaluation of Feedback.

		Mean_ IntrinsicM	Mean_ ExtrinsicM	Mean_ Anxiety	Self-Evaluation of Feedback
Mean_ IntrinsicM	Pearson Correlation	1			
	Sig. (2-tailed)				
Mean_ ExtrinsicM	Pearson Correlation	.339***	1		
	Sig. (2-tailed)	<.001			
Mean_ Anxiety	Pearson Correlation	0.074	.630***	1	
	Sig. (2-tailed)	0.235	<.001		
Self-Evaluation of Feedback	Pearson Correlation	.263***	.288***	0.113	1
	Sig. (2-tailed)	<.001	<.001	0.071	

***. Correlation at 0.001(2-tailed) (N=257)

Results indicated a moderate positive correlation between intrinsic and extrinsic motivation ($r = .339$, $p < .001$), suggesting that participants high in one type of motivation also tended to be high in the other. Extrinsic motivation showed a strong positive correlation with feedback anxiety ($r = .630$, $p < .001$), whereas intrinsic motivation was not significantly related to anxiety ($r = .074$, $p = .235$). Both intrinsic and extrinsic motivation were positively associated with self-evaluation of feedback ($r = .263$, $p < .001$; $r = .288$, $p < .001$, respectively), indicating that participants with stronger motivation tended to perceive their received feedback more favourably. However, feedback anxiety showed only a weak and non-significant relationship with self-evaluation ($r = .113$, $p = .071$). Together, these results suggest that while both intrinsic and extrinsic motivation are linked to more positive feedback perceptions, only extrinsic motivation is strongly associated with higher feedback-related anxiety.

3.3. Correlation Analysis

A multiple linear regression analysis was carried out in order to investigate the predictive functions of motivation and perceived feedback on creators' feedback anxiety. Feedback anxiety (Mean_ Anxiety) served as the dependent variable. Intrinsic motivation (Mean_ IntrinsicM), extrinsic motivation (Mean_ ExtrinsicM), and self-evaluation of feedback state were independent variables.

The overall model was significant, F (3, 253) = 61.460, p < .001, with R = .649 and R^2 = .422. It indicated that approximately 42% of the variance in feedback anxiety could be explained by the three predictors.

Table 2. Coefficients of Multiple Regression Predicting Feedback Anxiety. (Dependent Variable: Mean_Anxiety)

	Standardised Coefficients Beta	t	Sig.
(Constant)		3.260	0.001
Mean_IntrinsicM	-0.149	-2.878	0.004
Mean_ExtrinsicM	0.695	13.336	0.000

According to Table 2, extrinsic motivation was the strongest positive predictor of feedback anxiety (β = .695, p < .001). Conversely, intrinsic motivation showed a relatively modest negative association (β = –.149, p = .004). This indicates that creators whose motivation relies heavily on external approval or recognition tend to experience greater anxiety towards feedback, while creators who are primarily driven by intrinsic motivation experience a slightly lower level of feedback anxiety. Meanwhile, self-evaluation of feedback did not significantly predict anxiety (β = –.048, p = .345), suggesting that perceived feedback satisfaction alone may not meaningfully buffer emotional responses once motivational orientation is accounted for. Overall, these results reinforce the correlation findings: extrinsic motivation is the primary driver of feedback-related anxiety, while intrinsic motivation provides limited but measurable emotional protection.

3.4. Group Difference Analysis

A multiple linear regression analysis was carried out in order to investigate the predictive functions of motivation and perceived feedback on creators' feedback anxiety. Feedback anxiety (Mean_ Anxiety) served as the dependent variable. Intrinsic motivation (Mean_ IntrinsicM), extrinsic motivation (Mean_ ExtrinsicM), and self-evaluation of feedback state were independent variables.

The overall model was significant, F (3, 253) = 61.460, p < .001, with R = .649 and R^2 = .422. It indicated that approximately 42% of the variance in feedback anxiety could be explained by the three predictors.

Descriptive statistics for all subgroups are summarised in Table 3.

Table 3. Mean Scores (±SD) of Intrinsic Motivation, Extrinsic Motivation, and Feedback Anxiety across Demographic and Creative Variables.

Variable	Group	N	Intrinsic_ M (SD)	Extrinsic_ M (SD)	Anxiety_ M (SD)
Age Group	12–18	75	4.22 (.63)	3.38 (.68)	3.03 (.82)
	18–25	174	4.12 (.66)	3.21 (.66)	2.96 (.79)
	26–30	5	4.10 (.70)	3.18 (.73)	3.37 (1.55)
	30+	3	3.98 (.64)	3.09 (.71)	2.74 (1.41)
Numbers of Creative Forms	1	41	4.20(.49)	3.19(.58)	2.85(.77)
	2	92	4.13(.60)	3.24(.64)	2.98(.84)
	3	64	4.28(.54)	3.37(.66)	3.13(.79)
	4	39	4.37(.39)	3.39(.64)	3.013(.91)
	5	13	4.49(0.34)	3.59(.68)	3.26(.89)
	6	7	4.66(.30)	3.81(.82)	3.21(1.43)
	7	1	4.4	4.67	4.36
Number of Platforms	1	66	4.10 (.61)	3.19 (.62)	2.85 (.75)
	2–3	82	4.22 (.58)	3.31 (.65)	3.00 (.77)
	4–5	74	4.34 (.66)	3.53 (.71)	3.12 (.82)
	6–7	31	4.66 (.59)	3.81 (.73)	3.21 (.89)
Creative Experience (Years)	<0.5	9	4.33 (.62)	3.67 (.85)	3.08 (.72)
	0.5–1	24	4.30 (.59)	3.38 (.68)	2.96 (.75)
	1–3	60	4.19 (.66)	3.29 (.73)	3.01 (.81)

	3–5	67	4.13 (.64)	3.15 (.70)	2.94 (.77)
	>5	97	4.25 (.57)	3.07 (.69)	2.89 (.82)
Last Publish Time	Within 24hours	44	4.39 (.61)	3.24 (.65)	2.95 (.77)
	Within 3 days	29	4.49 (.64)	3.29 (.66)	2.98 (.74)
	Within 1 week	44	4.11 (.65)	3.32 (.71)	3.07 (.82)
	Within 1 month	68	4.14 (.60)	3.27 (.68)	3.01 (.79)
	Within 1 year	49	4.18 (.67)	3.19 (.64)	2.84 (.74)
	>1 year	23	4.05 (.59)	3.25 (.69)	3.07 (.83)

One-way ANOVA and independent-samples t-tests were conducted to examine how age, creative form, number of publishing platforms, creative experience, and recency of publication related to creators' intrinsic motivation, extrinsic motivation, and feedback anxiety.

3.4.1. Age group

A one-way ANOVA examined differences across four age groups (12–18, 18–25, 26–30, and 30+).

Results indicated no significant age effect on intrinsic motivation, $F(3,253) = 1.93$, $p=.125$, or feedback anxiety, $F(3,253) = 1.45$, $p=.228$. However, extrinsic motivation differed significantly across groups, $F(3,253) = 3.03$, $p=.030$. Post-hoc comparisons (Games–Howell) showed that the 12–18 group scored higher in extrinsic motivation than the 18–25 group ($p=.031$). These differences suggest a modest decline in extrinsic motivation from adolescence to early adulthood.

3.4.2. Number of creative forms used

An independent-samples t-test compared participants who created in a single form (e.g., writing or drawing) versus multiple forms. There were no significant differences in intrinsic motivation ($t=-1.08$, $p=.282$) or feedback anxiety ($t=-1.75$, $p=.081$). However, extrinsic motivation was significantly higher among multi-form creators ($t=-2.21$, $p=.028$; $M=3.41$, $SD=0.70$) than single-form creators ($M=3.23$, $SD=0.59$).

A one-way ANOVA examining the number of creative forms (1–5) confirmed significant group effects for extrinsic motivation, $F(4,252) = 4.63$, $p=.001$, and feedback anxiety, $F(4,252) = 4.08$, $p=.003$, but not for intrinsic motivation ($p=.602$). Post-hoc tests indicated higher extrinsic motivation and anxiety among those engaged in multiple creative forms.

3.4.3. Number of creative platforms

An independent-samples t-test comparing single- and multi-platform creators revealed no significant differences in intrinsic motivation ($t=-0.68$, $p=.495$), extrinsic motivation ($t=-1.46$, $p=.174$), or feedback anxiety ($t=-1.46$, $p=.146$). However, a one-way ANOVA examining total platform number (1–7) revealed significant group effects for intrinsic motivation, $F(6,250) = 2.46$, $p=.025$, and extrinsic motivation, $F(6,250) = 2.40$, $p=.028$, though not for feedback anxiety ($p=.343$). Mean scores (Table 3) showed a general upward trend in both motivation types with increasing platform number, while anxiety remained relatively stable. Additionally, small-sample groups (e.g., groups of seven platforms, N=1) should be interpreted with caution.

3.4.4. Creative experience

Significant group differences were found for extrinsic motivation, $F(4,252) = 6.90$, $p<.001$, but not for intrinsic motivation ($F(4, 252) = 0.802$, $p = .525$) or feedback anxiety ($F(4, 252) = 1.839$, $p = .122$). Tukey HSD post-hoc tests indicated that participants with less than half a year of creative experience reported significantly higher extrinsic motivation than those with longer experience (0.5–1 year, $p=.006$; 1–3 years, $p<.001$; 3–5 years, $p=.008$). Mean values (Table 3) demonstrated a steady decline in extrinsic motivation with greater creative experience, while intrinsic motivation remained stable.

3.4.5. Time since last publication

Using one-way ANOVA, differences across six groups of publication recency were examined. Results indicated a significant effect on intrinsic motivation, F (5,251) =2.93, p=.014, but not on extrinsic motivation (F (5, 251) = 1.055, p = .386) or feedback anxiety (F (5, 251) = 1.173, p = .323). The result of Post-hoc Tukey HSD comparisons indicated that participants of groups who had published more than one day but within three days were experiencing a significantly higher level of intrinsic motivation than those who had published more than 3 days but within one week (p=.032). Mean scores suggested that intrinsic motivation reached a peak among creators who are the most recently active and declined among those who publish with less recency.

In conclusion, intrinsic motivation consistently outperformed extrinsic drive in all subgroup comparisons. Extrinsic motivation and feedback anxiety were easier to be influenced by background factors, particularly creative experience and the number of forms and platforms. These results support the idea that, while fan creators are primarily intrinsically motivated, external factors impact the level of extrinsic motivation and feedback anxiety.

4. Discussion

4.1. Main Findings

This research examined the relation between intrinsic and extrinsic motivation, creators' self-evaluation of feedback, and the feedback anxiety in the context of online fan-creation. Aligned with hypothesis 2, extrinsic motivation showed a significant positive correlation and predictive effect on feedback anxiety. Meanwhile, intrinsic motivation showed no significant relationship with feedback anxiety. Contrary to the intermediate hypothesis, self-evaluation of feedback did not significantly predict anxiety. Together, these results indicate that creators' anxiety towards feedback is primarily related to their extrinsic orientation of audience approval, instead of intrinsic enjoyment or recent feedback satisfaction.

4.2. Implications

The findings generally align with SDT [7]. The strong link between extrinsic motivation and anxiety supports the view that dependence on recognition and reward heightens vulnerability to evaluative stress. This pattern refines previous qualitative insights from previous scholars, who emphasised the affective investment and communal dependence embedded in fandom culture [1,3].

In contrast, the absence of a buffering effect of intrinsic motivation suggests that internal orientation of motivation may not protect creators, as long as social evaluation is salient for the individual. Intrinsic and extrinsic motives may interact rather than oppose each other, which is aligned with MST [6]. High intrinsic motivation does not automatically buffer anxiety when creators simultaneously depend on external feedback. In participatory fandoms, intrinsic enjoyment often coexists with extrinsic concerns. This psychological ambivalence was qualitatively observed by previous ethnographical studies that creative joy is interwoven with vulnerability to judgment [2,3]. The results of current research thus support that intrinsic motivation alone is not a sufficient protective factor when the social dimension of fandom inevitably results in public evaluation and brings feedback anxiety.

Additionally, methodological factors may also contribute to the insignificant relationship between intrinsic motivation and feedback anxiety. The relatively low reliability of the intrinsic motivation scale (Cronbach's $\alpha = .65$) might have undermined the observed correlations, highlighting the need for improvement in scale adaptation. Furthermore, the cross-sectional design examines association rather than causality; it is possible that heightened anxiety retrospectively reduces participants' reports of intrinsic motivation. Longitudinal or experimental studies are invited to clarify the underlying mechanism directionality.

CVT provides another perspective for further interpretation [10]. Online fan-work creators who are awaiting unpredictable audience reactions were experiencing the typical condition that feedback anxiety arises when a task is highly valued but perceived control is low. The weak and non-significant link between self-evaluated feedback quality and anxiety in this study supports this view: even when creators perceive their feedback as positive, such outcomes may not be sufficient to support a prolonged sense of control. Additionally, the weak association between self-evaluation and feedback anxiety may be caused by the low credibility due to the context-dependent and subjective nature of how creators report their perceived feedback. Individual differences in interpretation, rather than numerical feedback itself, might weaken this relationship as well. Thus, anxiety originates less from the value of feedback than from persistent ambiguity in audience behaviour and social visibility.

Moving forward, group difference analyses reinforce the dynamic nature of fan-creation motivation. Younger and less-experienced creators demonstrated higher extrinsic motivation and greater anxiety, suggesting an early dependence on external validation, which would gradually internalise with experience. The current clues are insufficient to determine the causal relationship between the action of creating in multiple creative forms, the extrinsic orientation of motivation, and a relatively high level of feedback anxiety. Although age showed no direct effect on feedback anxiety or intrinsic motivation, it significantly influenced extrinsic motivation. Younger participants (particularly those aged from 12 to 18) tended to report higher extrinsic motivation, possibly reflecting greater sensitivity to social validation and peer recognition during adolescence. This pattern suggests that, instead of directly interfering with anxiety, age may shift motivation from externally driven goals in younger groups toward more intrinsic and self-regulated motives in older creators. It should be noted further that this internalisation may not solely rely on the increase of age and experience of an individual; the change of online and offline social vibe should be considered in a broader sense. These quantitative findings complement ethnographic accounts and extend prior interview-based observations for the development of motivation in fan communities by providing statistical evidence for the process of internalisation.

The results highlight that interventions for decreasing feedback anxiety should prioritise reducing psychological dependence on external validation metrics. For platforms, creating a more balanced feedback environment, such as de-emphasising public visibility indicators (e.g., likes, follower counts) and encouraging private, qualitative feedback exchanges, may help shift users' focus from external comparison to interpersonal interaction. For individuals, fostering self-referential evaluation and intrinsic goal setting, such as tracking the development of creative skills rather than social metrics, may reduce the emotional burden associated with audience judgment, thereby alleviating feedback anxiety and sustaining long-term creative engagement.

4.3. Limitations and Future Directions

Several limitations should be noted in this research. Firstly, the study's cross-sectional design was insufficient to account for causal inference. Secondly, sample imbalance, particularly the small number of male and elderly participants, limits generalizability. Thirdly, the reliability of motivational scales needs to be improved. Despite adaptation, motivational scales were adapted from existing scales, which are most used to measure in education or working domains, instead of voluntary creation. Finally, the data relied on self-reports, which are prone to introducing bias.

Future research may adopt longitudinal or mixed-method designs, combining self-report surveys with interviews and digital trace data to capture the temporal fluctuations in motivation and anxiety. Exploring community-level factors (e.g. platform affordances or collective norms) could also clarify the process of how fan ecosystems affect individual participants' psychological well-being. The design of scales could be improved by adding more items for both kinds of motivation, thereby delving deeper into the relationship between different subdimensions of intrinsic and extrinsic motivation. Notably, there is disagreement between different theories' distinction of intrinsic and extrinsic motivations. Therefore, future investigations are encouraged to jump out of the current

classification of motivation types and attempt to include more minute factors into interventions that sustain healthy creativity.

5. Conclusion

This quantitative investigation examined the relationships between intrinsic and extrinsic motivation, self-evaluation of feedback, and feedback anxiety among fan-work creators on China's mainland platforms. According to the result, extrinsic motivation was the strongest positive predictor of feedback anxiety, indicating that creators driven by audience approval and other external factors are more vulnerable to emotional strain when facing evaluative feedback. Intrinsic motivation is consistently high among participants. Whereas it did not significantly buffer against anxiety, refuting the initial hypothesis that internally oriented motivation would reduce feedback anxiety. Similarly, the self-evaluation of feedback quality failed to predict anxiety significantly, indicating that creators' emotional states depend less on the valence of received feedback but more on broader perceptions, such as control or recognition. Group difference analyses using independent-samples t-tests and one-way ANOVA tests further demonstrated that creators who are younger and less experienced tend to possess more extrinsic motivation and experience higher anxiety, while experienced creators experienced a possible internalisation of motivation. These findings refine existing motivational theories by showing that creators' stress arises less from feedback valence and more from perceived dependence on external validation. Given this pattern, platforms and communities should foster self-determined, process-oriented engagement by de-emphasising public metrics and promoting supportive, peer-based interaction. For individual creators, developing self-referential evaluation and autonomy-driven goals may reduce emotional vulnerability.

This research contributes to filling the quantitative gap in fan studies, which have traditionally been dominated by ethnographic or interview-based methods, while the interdisciplinary perspective bridges psychology with media studies. Studies of fan community and psychological approaches were linked by operationalising motivation and anxiety through psychometric measurement, offering a replicable framework for future research. The findings may also remind digital platform designers and mental-health practitioners of supporting creators' emotional regulation and sustainable motivation in online participatory environments.

Future research is suggested to adopt longitudinal or experimental designs to establish causal links between the orientation of motivation and broader emotional outcomes. External validity could be enhanced by increasing sample representativeness, especially for underrepresented groups, such as online fan-work creators under 12 or over 30 years old. Moreover, as suggested by SDT, MST, and CVT, incorporating mediating factors such as perceived control, social support, and community climate could deepen the understanding of feedback anxiety and its process of formation and regulation. These variables may account for the effect of intertwined contextual and motivational mechanisms that jointly shape creators' emotional responses to feedback. Expanding cross-platform, cross-generation, and cross-cultural comparisons would also support the clarification of how factors like platform norms, social norms, and cultural expectations interfere with creators' motivational and affective experiences in the digital fandom community.

References

[1] Jenkins, H. Textual poachers: Television fans and participatory culture. Routledge, 1992.

[2] Hills, M. Fan Cultures. Routledge, 2002.

[3] Zubernis, L., Larsen, K. Fandom at the crossroads: Celebration, shame and fan/producer relationships. Cambridge Scholars Publishing, 2012.

[4] Booth, P. Digital fandom 2.0: New media studies. 2nd edit. Peter Lang, 2016.

[5] Coppa, F., Busse, K., & Hellekson, K. Fan fiction and fan communities in the age of the Internet: New essays. McFarland, 2006.

[6] Amabile, T. M. Creativity in context: Update to "The Social Psychology of Creativity.". Routledge, 1996.

[7] Deci, E. L., & Ryan, R. M. Intrinsic motivation and self-determination in human behavior. Springer Science & Business Media, 2013.

[8] Mehta, M. M., Butler, G., Ahn, C., Whitaker, Y. I., et al., Intrinsic and extrinsic control impact motivation and outcome sensitivity: the role of anhedonia, stress, and anxiety. Psychological Medicine, 2024, 54(16): 4575–4584.

[9] Zhang, Y., Pappa, C. I., & Pittich, D. (2024). Exploring user-generated content motivations: A systematic review of theoretical perspectives and empirical gaps in online learning. Computers and Education Open, 100235.

[10] Pekrun, R. The control-value theory of achievement emotions: Assumptions, corollaries, and implications for educational research and practice. Educational Psychology Review, 2006,18(4): 315–341.

[11] Evans, S., Davis, K., Evans, A., Campbell, J. A., Randall, D., Yin, K., & Aragon, C. More Than Peer Production: Fanfiction Communities as Sites of Distributed Mentoring. In Proceedings of the 2017 ACM Conference on Computer Supported Cooperative Work and Social Computing. 2017.

[12] Foong, E., Dow, S. P., Bailey, B. P., & Gerber, E. M. (2017, May). Online feedback exchange: A framework for understanding the socio-psychological factors. In Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems (pp. 4454-4467).

[13] Crain, P. A., & Bailey, B. P. (2017). Share once or share often? Exploring how designers approach iteration in a large online community. In Proceedings of the 2017 ACM SIGCHI Conference on Creativity and Cognition (pp. 80–92).

[14] Jing, E., DeDeo, S., Wright, D. R., & Ahn, Y. Y. Sameness entices, but novelty enchants in fanfiction online. Humanities and Social Sciences Communications, 2025, 12(1): 1-10.

[15] Vannucci, A., Flannery, K. M., & Ohannessian, C. M. Social media use and anxiety in emerging adults. Journal of Affective Disorders, 2017, 207, 163–166.

[16] Cheng, R., & Frens, J. Feedback exchange and online affinity: A case study of online fanfiction writers. Proceedings of the ACM on Human-Computer Interaction, 2022, 6(CSCW2), 1-29.

[17] Vallerand, R. J., Pelletier, L. G., Blais, M. R., Briere, N. M., Senecal, C., & Vallieres, E. F. The Academic Motivation Scale: A measure of intrinsic, extrinsic, and amotivation in education. Educational and psychological measurement, 1992, 52(4), 1003-1017.

[18] Amabile, T. M., Hill, K. G., Hennessey, B. A., & Tighe, E. M. The Work Preference Inventory: Assessing intrinsic and extrinsic motivational orientations. Journal of Personality and Social Psychology, 1994, 66(5), 950–967.

[19] Spielberger, C. D., & Reheiser, E. C. Measuring anxiety, anger, depression, and curiosity as emotional states and personality traits with the STAI, STAXI and STPI, 2004.

[20] Spitzer, R. L., Kroenke, K., Williams, J. B. W., & Löwe, B. A brief measure for assessing generalized anxiety disorder: The GAD-7. Archives of Internal Medicine, 2006, 166(10): 1092–1097.